

# AI (R) Evolution

## Where are we heading to?

Agents today are "situationally intelligent," but not "self-consistently intelligent."

The next step is cohesive cognitive systems

Integrate perception, reasoning, planning, and learning continuously

Possess internal models of the world and themselves

Can transfer skills flexibly between domains

Possibly maintain enduring "personalities" or "values"

### **Artificial General Cognition (AGC)**

#### Self-consistent reasoning



	Challenge	Why Al struggles
	Domain specificity	Models overfit to training distributions
	Lack of causality	Skills tied to correlation, not mechanism
	No persistent self	No long-term goal or context memory
	Weak meta-learning	Poor at adapting to unseen tasks
	No embodiment	Lacks grounded, experiential understanding

Instead of one "smart" agent, imagine ecosystems of specialized agents

Form dynamic collaborations

Negotiate and compete for resources

**Self-organize** into emergent structures (like digital economies or governments)

Adapt as a collective intelligence

#### **Self-Organizing Multi-Agent Societies**

#### **AI Societies**

Next-gen Al won't live only in digital space.

Control physical robots, drones, or IoT systems

Interact seamlessly with the real world (through sensors, voice, and vision)

Learn continuously from its environment

Blend simulation with direct experience

#### **Embodied &** Real-World Integrated Intelligence

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