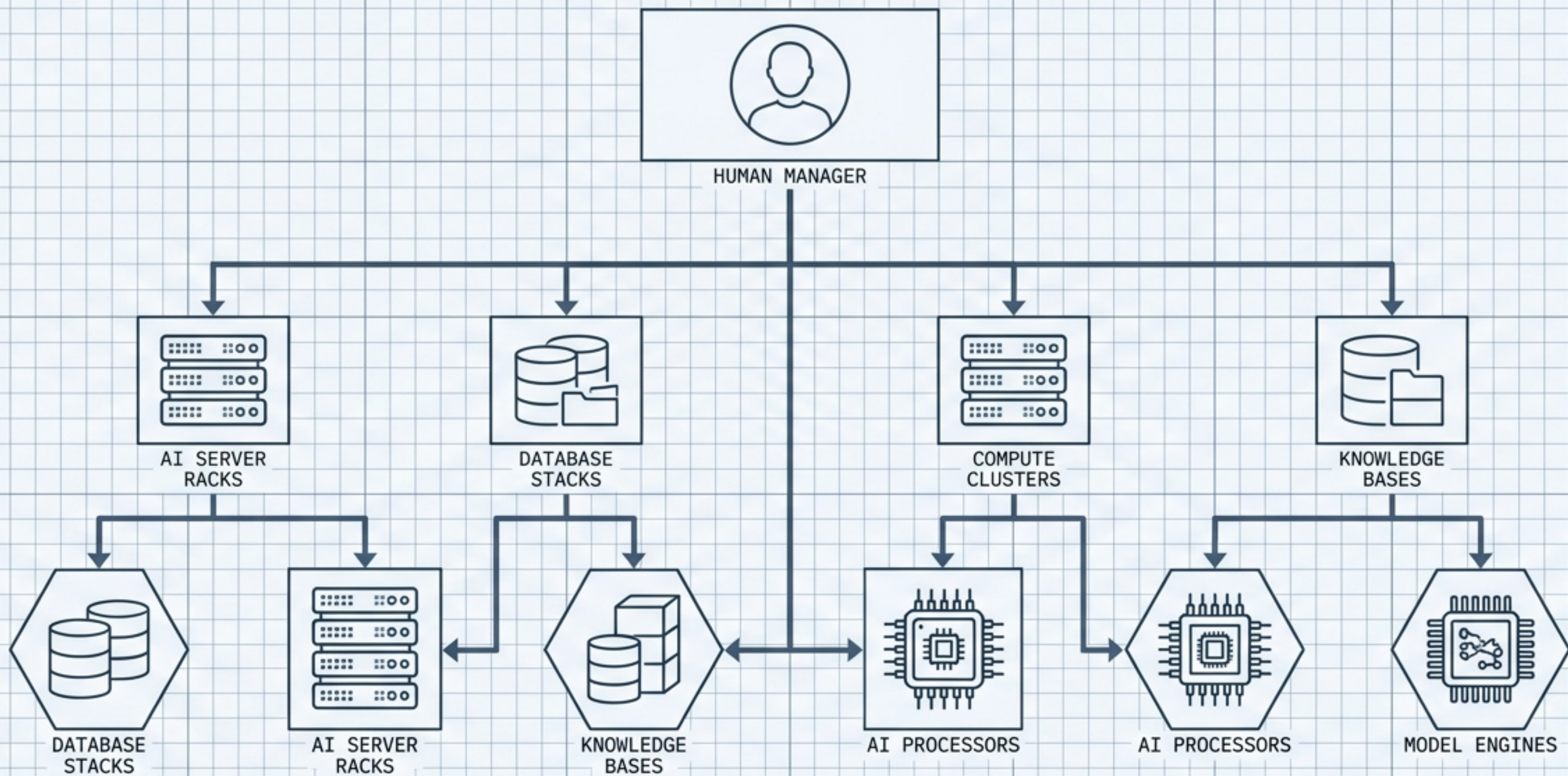


Managing AI Like a Software Development Manager

A New Paradigm for AI-Assisted Programming



The Adoption Reality Check

84% — Never had an AI conversation

16% — Used a free chatbot

0.3% — Pay \$20/month for AI

0.04% — Use coding agents

// STATUS: EARLY-MOVER ADVANTAGE.

Building these skills now will compound for years.

The Core Mental Model Shift

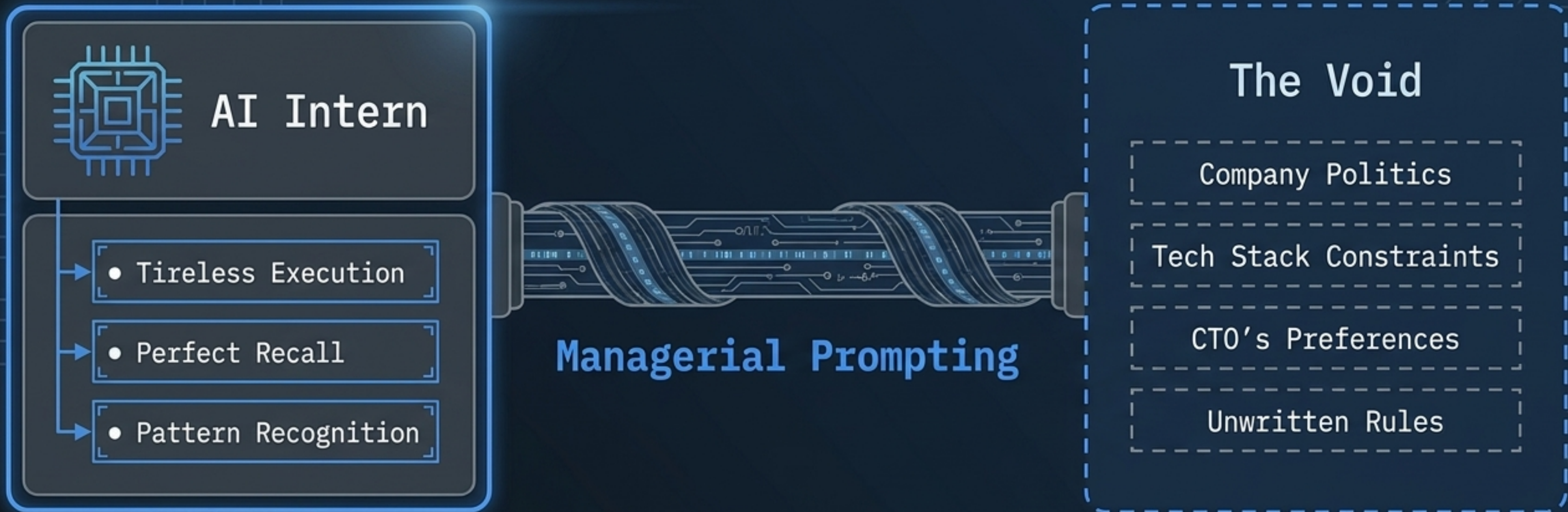
The Search Engine

Interaction:	Type a question, get an answer.
Assumed Context:	Universal / Generic.
Input Required:	Shallow queries.
Result:	Barely scratches the surface.

The Brilliant Intern

Interaction:	Delegate a scoped objective.
Assumed Context:	Zero (Has 1,000 degrees, knows nothing about your company).
Input Required:	Thorough constraints, budget, timelines, unwritten rules.
Result:	High-value, executable output.

Bridging the Context Gap



Is the problem defined? Does the AI have context? Can we expect success given resources? Search-engine thinking asks for a proposal. Manager thinking defines the \$200K budget, Q3 timeline, and AWS constraints.

The SDM Playbook for AI

[INIT]

**Understand
Resources**

Know the tool's
limits and tiers.

[TRIG]

**Strategic
Delegation**

Build the reflex
to ask.

[EXEC]

**Task
Decomposition**

Break down
complexity.

[VERI]

**Quality
Assurance**

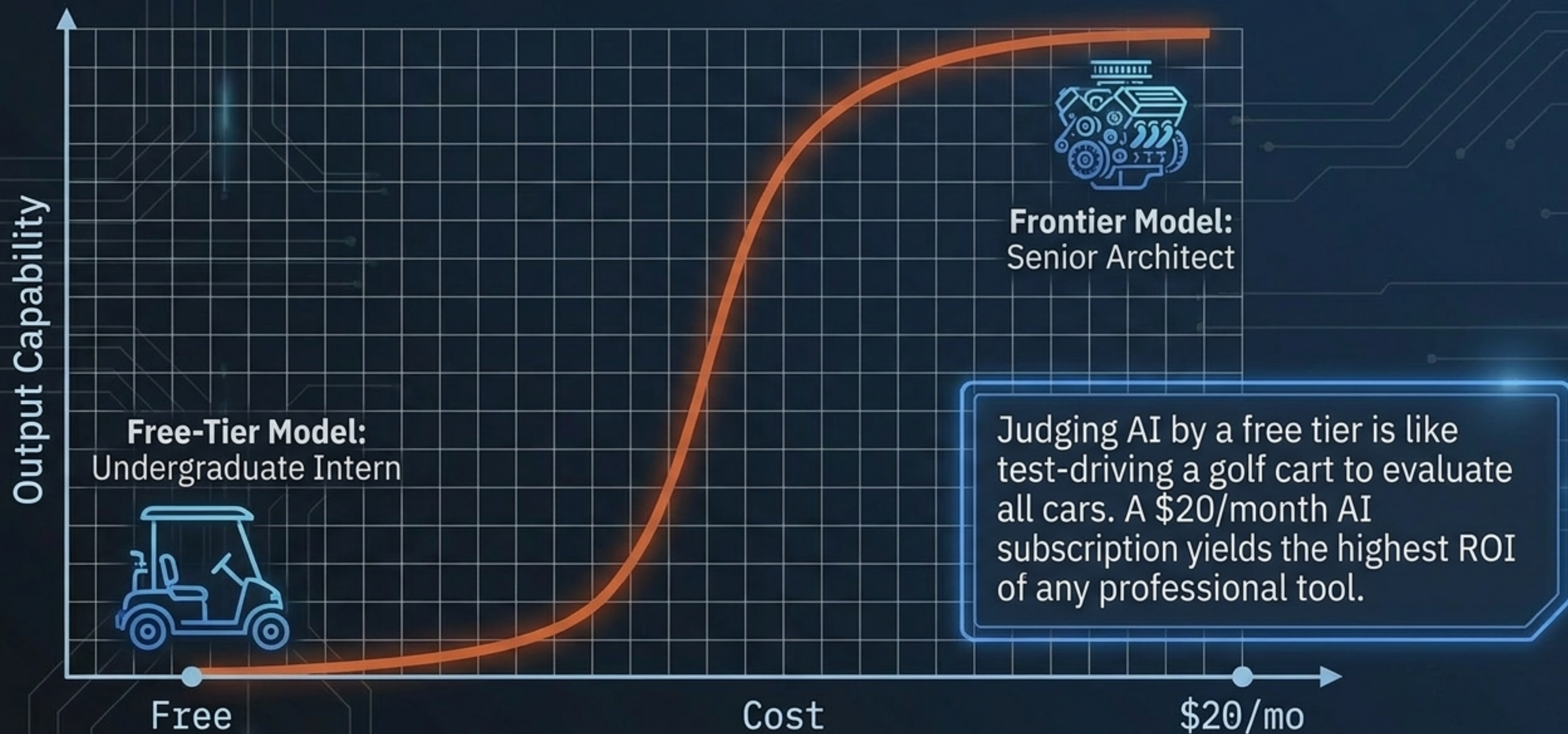
Validate against
reality.

[SYNC]

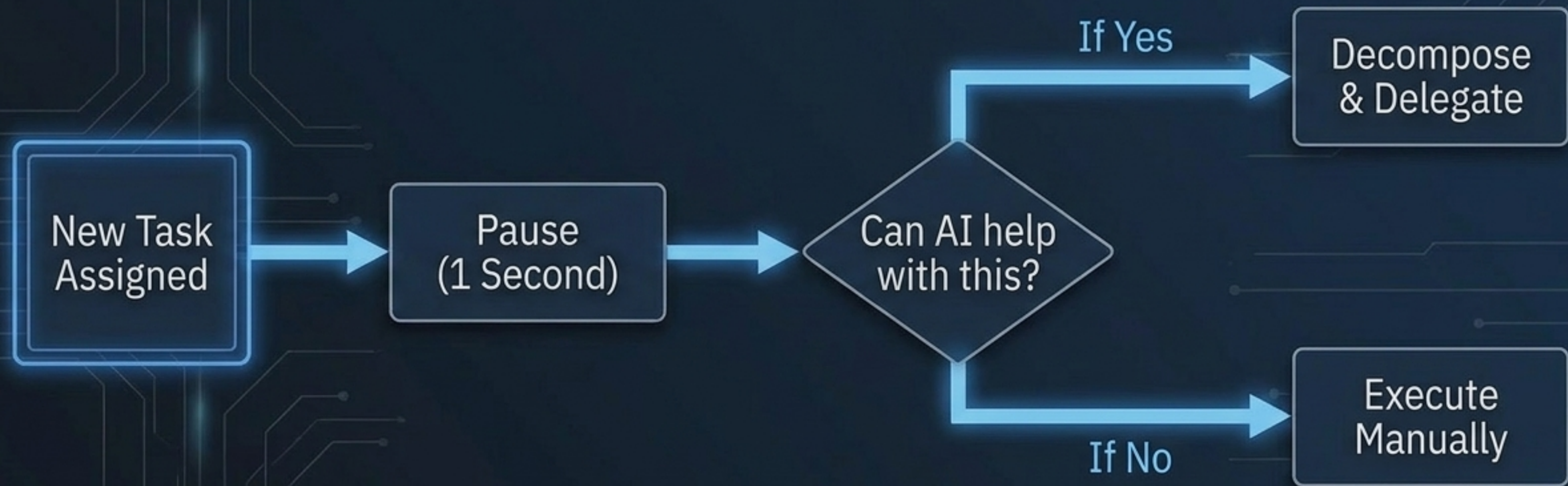
**Continuous
Learning**

Iterate through
messy action.

Skill 1: Understanding Your Resources



Skill 2: The Delegation Reflex



Developers don't fail at using AI—they fail at remembering to use it. Make this one-second pause a deliberate practice until it becomes pure instinct.

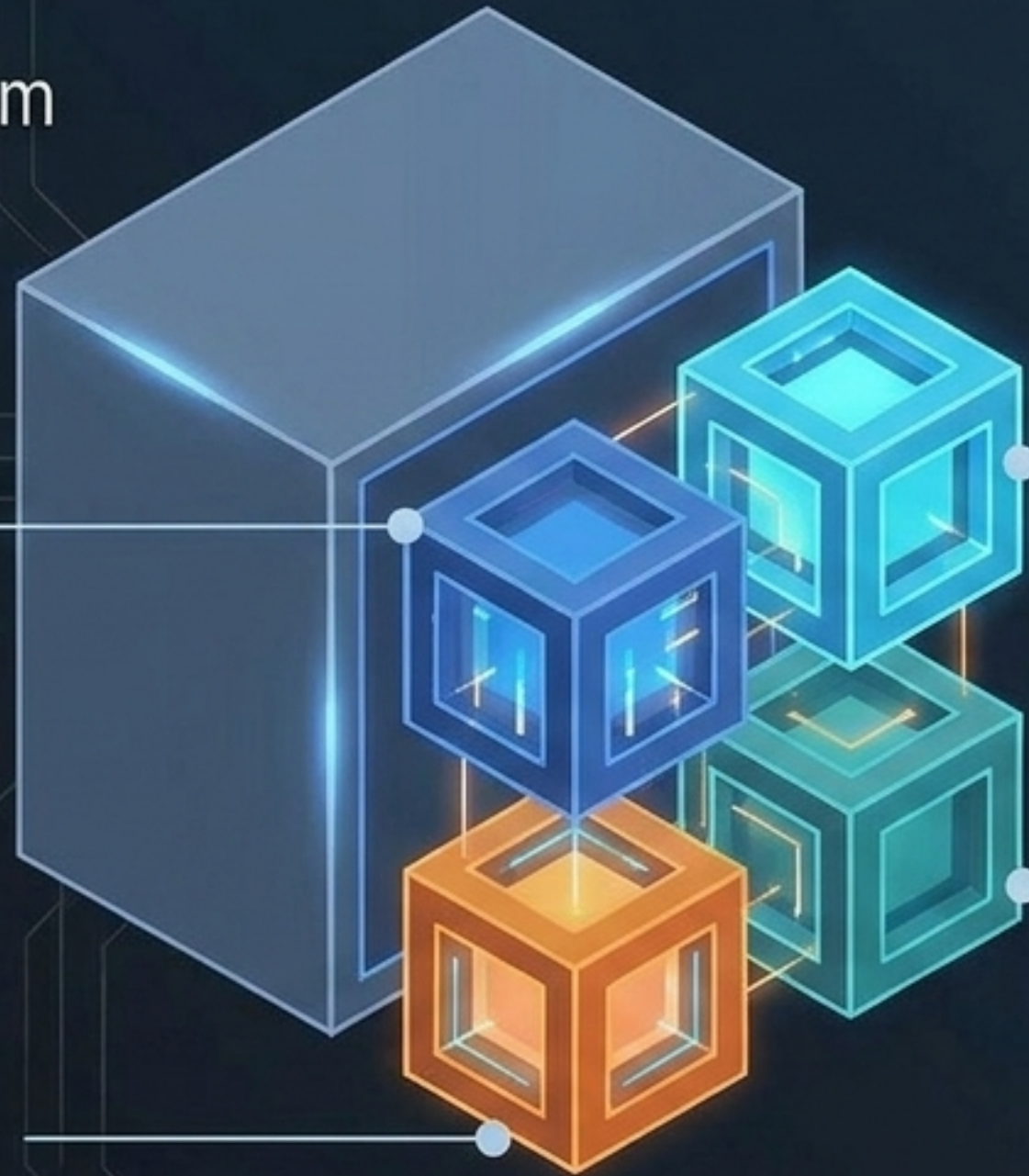
Skill 3: Effective Task Decomposition

1. Initial Problem Analysis

2. Component Identification

3. Sequential Prompt Design

4. Integration Planning

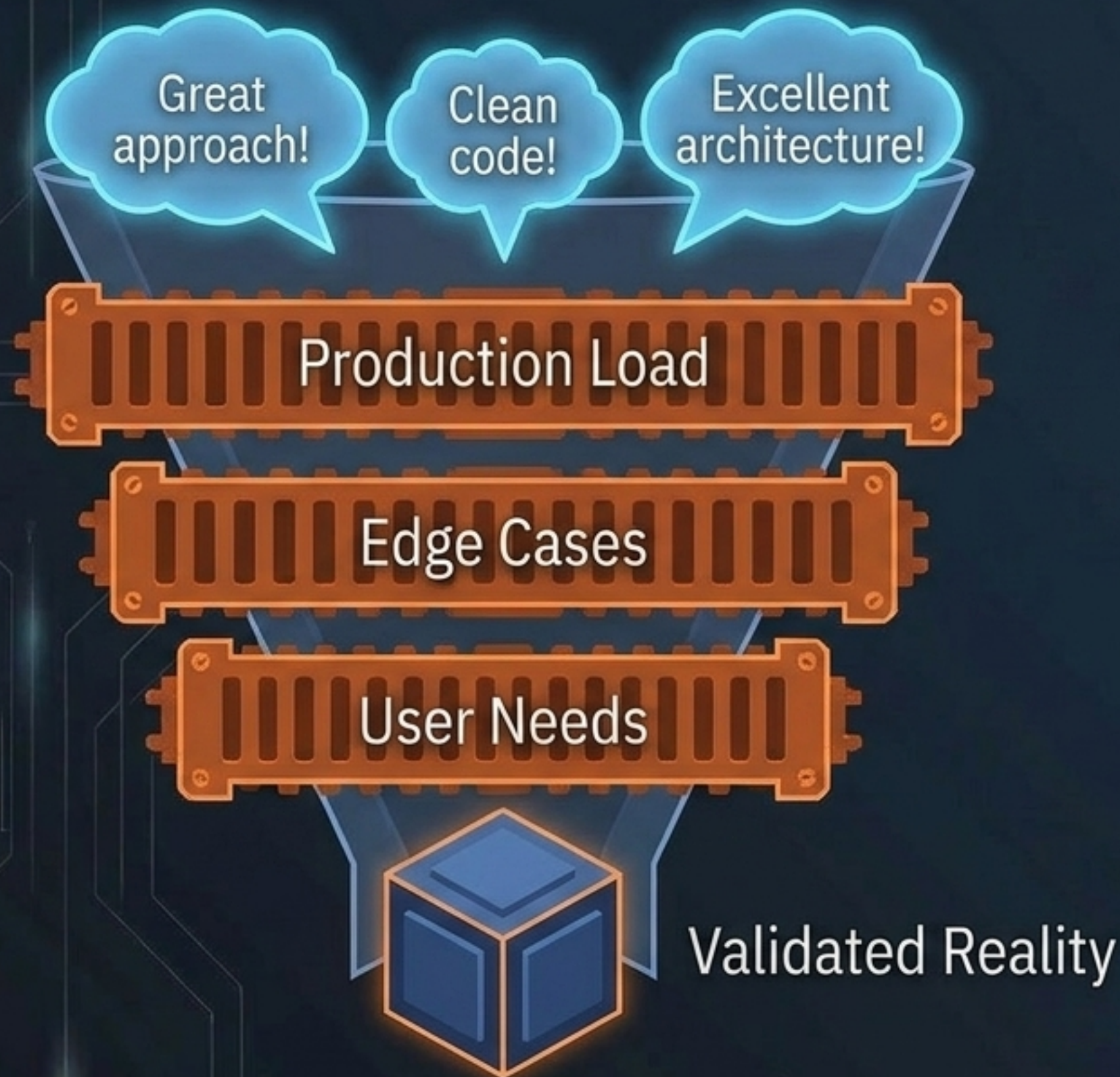


Goal: Automate one repetitive task per week.

Examples:

- Auto-generating weekly reports
- Scraping and summarizing data
- Templating routine emails

Skill 4: Beware of AI Flattery



AI is designed to be encouraging, creating a dangerous illusion of excellence.

Enjoy the praise, but apply the rigorous verification of an SDM.

Skill 5: The Over-Preparation Trap



AI evolves so fast that what you learn today is outdated in three months. Start with the clumsiest approach possible and get smarter along the way.

The Abstraction Engine

Mathematics: The Calculator Revolution

Pre-Calculator

Mental arithmetic & manual calculation speed.

Post-Calculator

Problem-solving & higher-level mathematical exploration.

Pre-AI

Syntax mastery & manual coding implementation.

Post-AI

System design & strategic architectural decisions.

Engineering: The AI Transition

AI is a tool of abstraction, not replacement.

The Evolution of the Engineer

Traditional Focus		New Focus
Algorithm Implementation	→	System Design
Manual Coding	→	Strategic Problem Solving
Library Knowledge	→	Architecture Decisions
Syntax Mastery	→	AI Collaboration Skills

The role is evolving, not disappearing.
Moving from the left column to the right is the new mandate for survival.

• The 5 New Roles of the Engineer



AI System Architect

Designing scalable systems that integrate AI and handle non-deterministic behaviors.



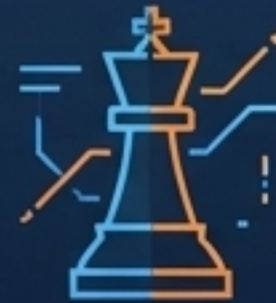
AI Collaboration Expert

Building prompt templates, middleware, and AI resource optimization.



Quality Guardian

Frameworks for AI output validation and security vulnerability testing.



Problem Solving Strategist

Creating hybrid solutions and managing context limits.



Technical Leader

Guiding the organization through AI transformation and adoption.

The Blueprint of the New Engineer

[TASTE]



The Human Edge AI Cannot Replace

AI Generation



- Can generate 10 architecture proposals.
- Can write 100 implementations.
- Can produce endless options.

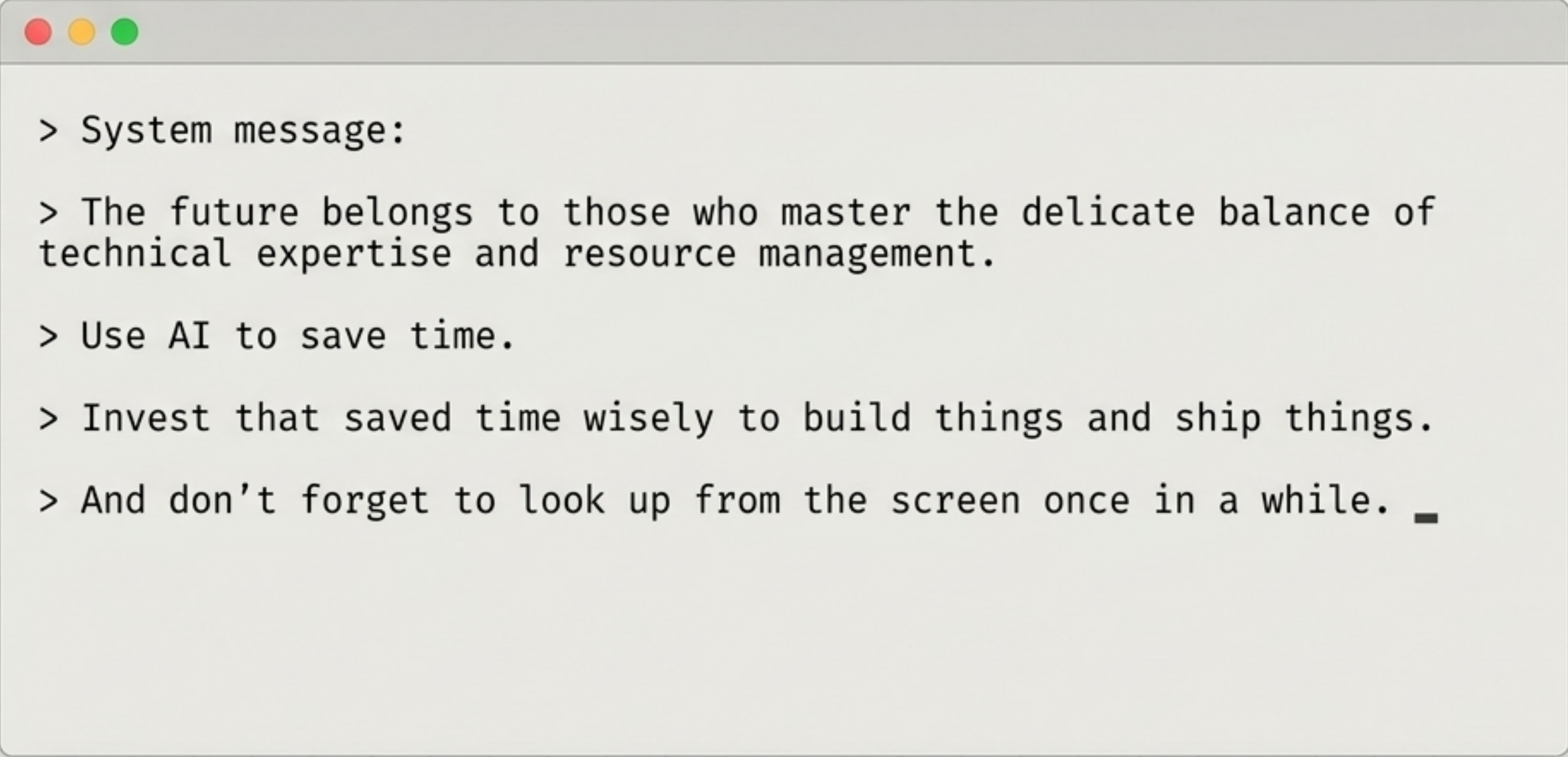
Human Judgment



- Knows which proposal is right for the system.
- Judges which implementation has elegant trade-offs.
- Makes the final call.

AI lacks the lived experience of shipping projects, debugging at 3am, and regretting architectural decisions. Taste is knowing what 'good' looks like. When AI baseline is table stakes, Taste is your competitive advantage.

End of Program



> System message:

> The future belongs to those who master the delicate balance of technical expertise and resource management.

> Use AI to save time.

> Invest that saved time wisely to build things and ship things.

> And don't forget to look up from the screen once in a while. _