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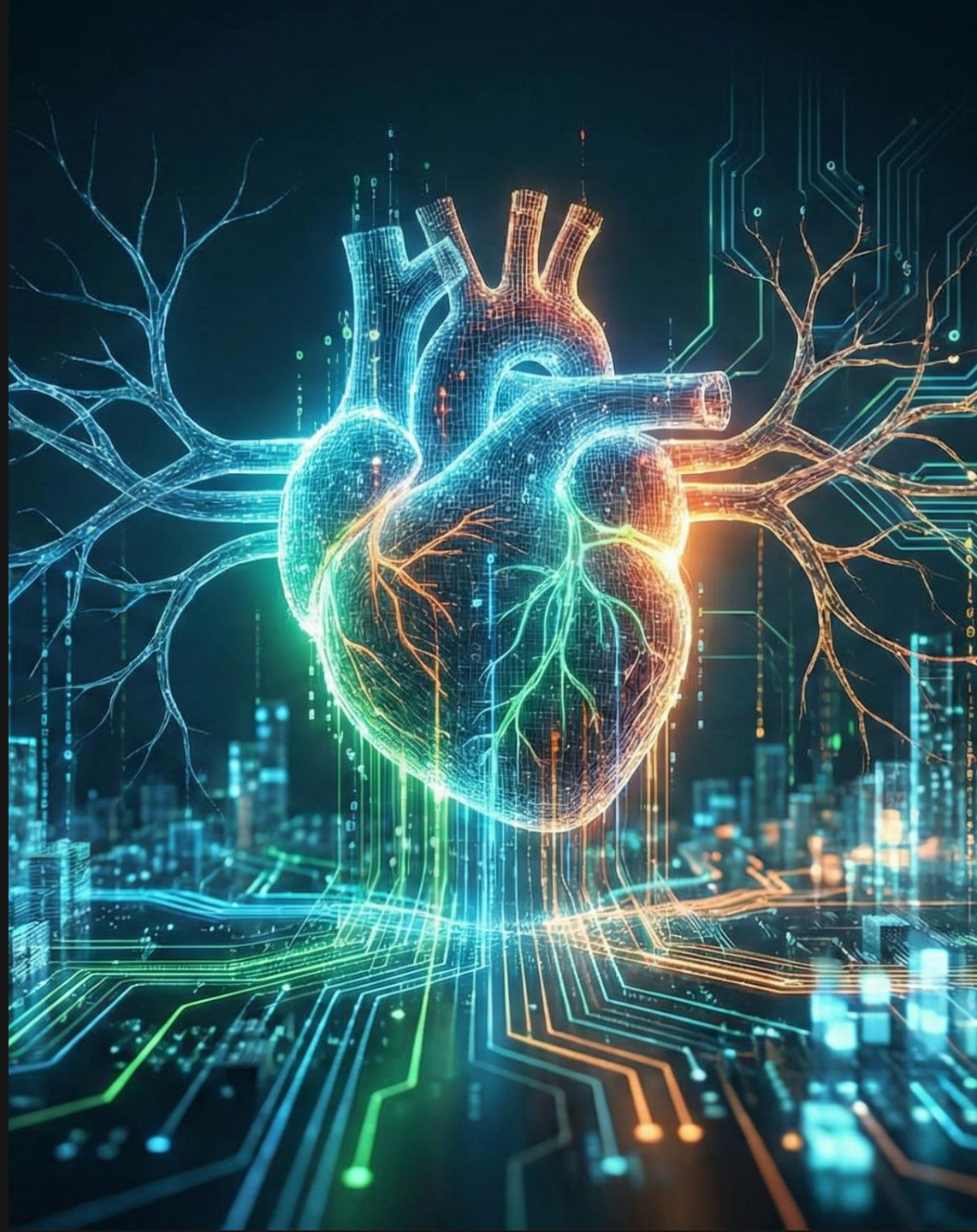
At the heart of AI: Data

Building the foundation for successful deployment

Why AI scales on ***meaning***, not models



In the Next 25 Minutes, We'll Explore

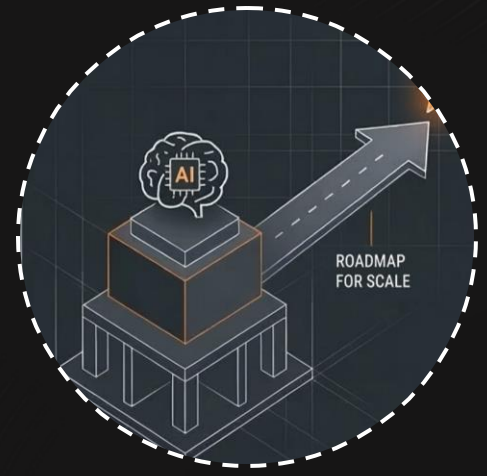
Stage Vs Street

Why the "magic" we see in demos often spins its tires in production

Hard-Earned Truth

A case study on the high cost of "expensive guessing"

A Roadmap for Scale



How to build the foundation for predictable, enterprise AI

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Lately, I’m encountering two kinds of people

Those who know about AI + data magic

Those who have tried to *actually* do it

The "Excel Illusion"

- **Demos feel magical**
- **Data models are simplified**
- **Context is complete**
- The AI “*sees everything*” at once.

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Most of us live here, though

MANY: *Business Units, Regions, Systems*

DIFFERENT: *Names, Grains, Definitions*

AI *Blindness*

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How most often try to cure AI blindness

- **First instinct:** fix blindness by arming the AI with ***everything***.
- **Prompt stuffing:** definitions, descriptions, rules, thoughts, feelings.
- **Goal:** answer any question across any grain.

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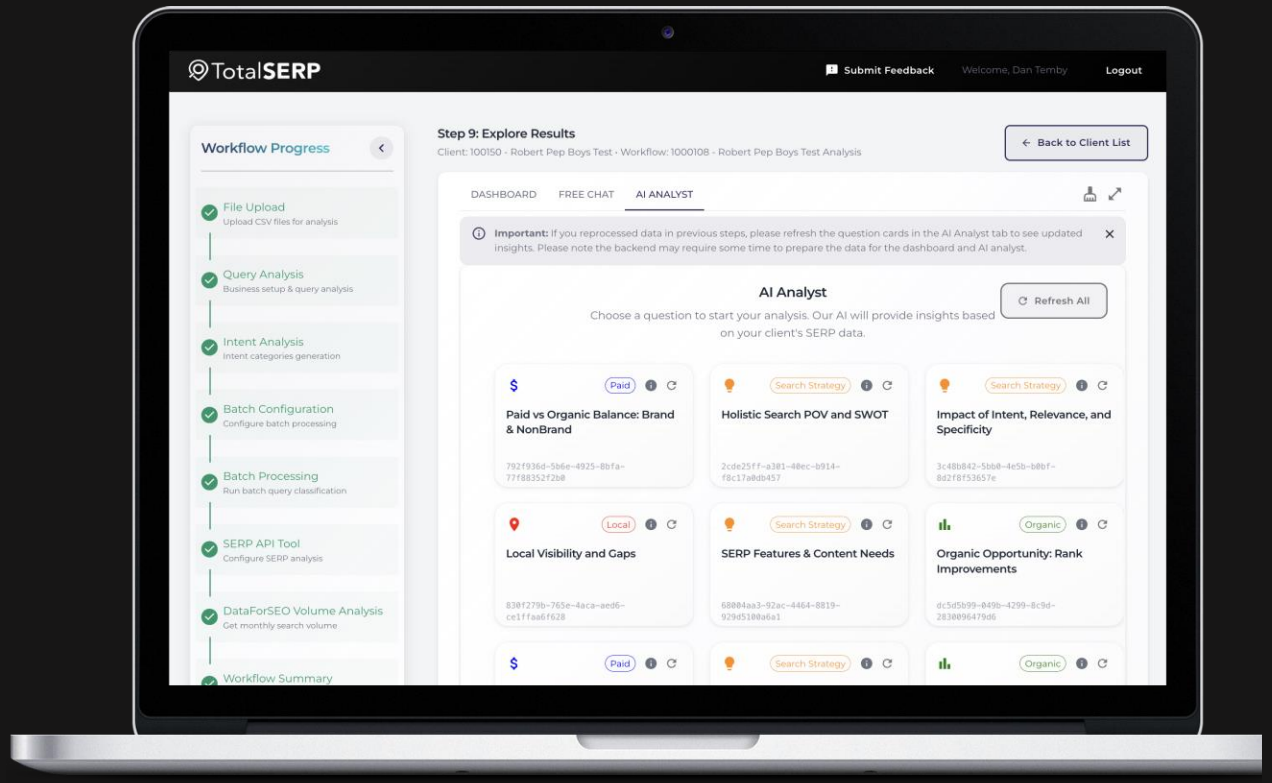
Our Big Innovation Challenge

TotalSERP

- **Unifies Organic, Local & Paid search data** into a unified model.
- Classifies & sub-classifies queries using semantic + logical decomp.
- Creates proprietary metrics (Intent, Specificity) for quant analysis.
- Enriches with sampled live SERP grabs for real-world competitive context.



Reveal growth opportunities & eliminate wasted spend across the full Search Ecosystem

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Great, now let's see what it can do …

TotalSERP

*"Create a scatter plot showing how **Intent score for non-branded, price-sensitive topics** correlate with **conversion rate, spend, and organic demand**"*

SEARCH → TRY → FAIL → PANIC → REPEAT

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40+ TOOLCALLS
980,000 TOKENS
- Surprisingly, The Result Was **Correct**
- The **NEXT** Question: Hilariously (and Expensively) Wrong
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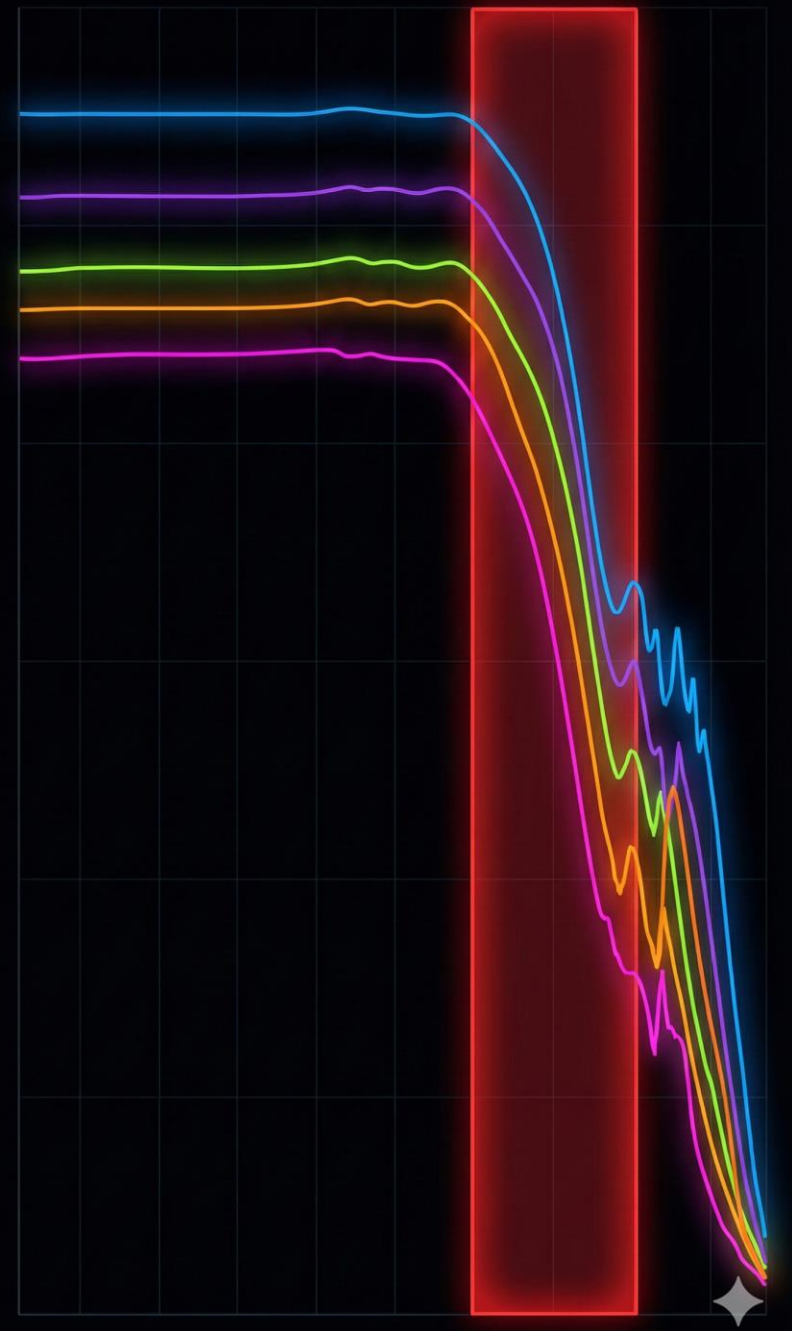
Why ***more instructions*** are making your AI agents dumber

- **‘Kitchen-sink' prompting** creates Context Rot.
- **Big windows ≠ usable context**
  - Effective working set is ***much*** smaller than 1M tokens.
- **Quality drops non-linearly**
- **More noise = more hallucinations**
- Attention is diluted as the conversation continues.



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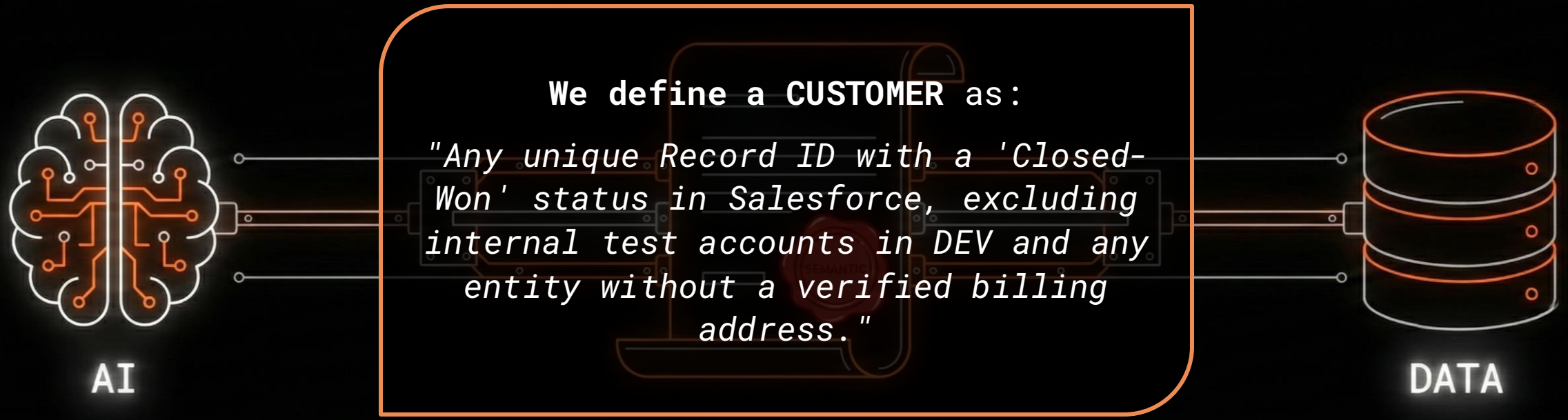
Stop Guessing. Start Negotiating.

- **This fix** is not a bigger prompt — it's a **semantic layer**
- A rigid **business contract** locking definitions and understanding

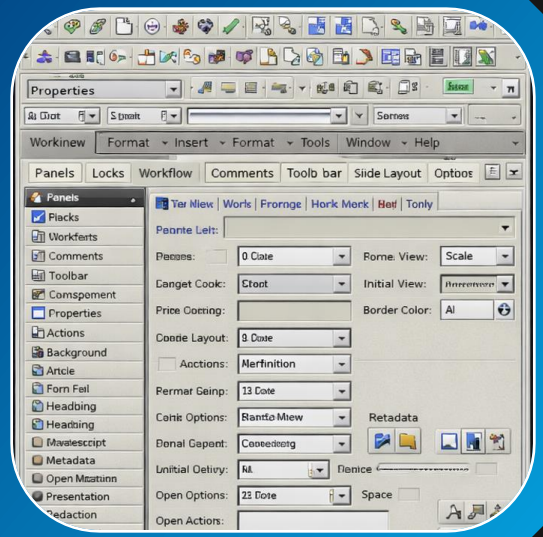


But Semantic Layers Get Huge, Too

So, we Borrow from a 1990's UX Principle:

Information Overload

Every Call gets Every Definition



Progressive Disclosure

Just-in-time context

The Target: *Minimum Viable Context*

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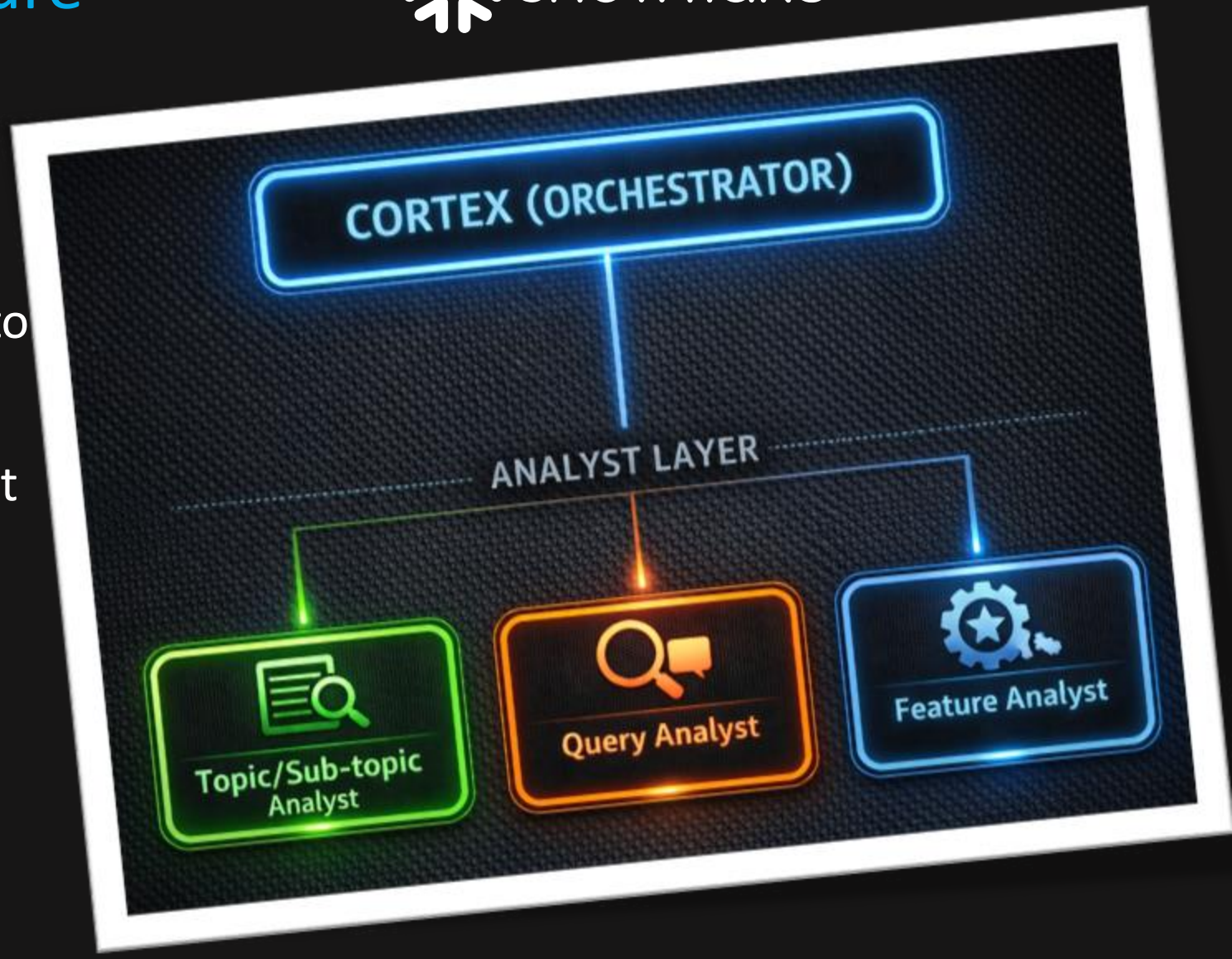
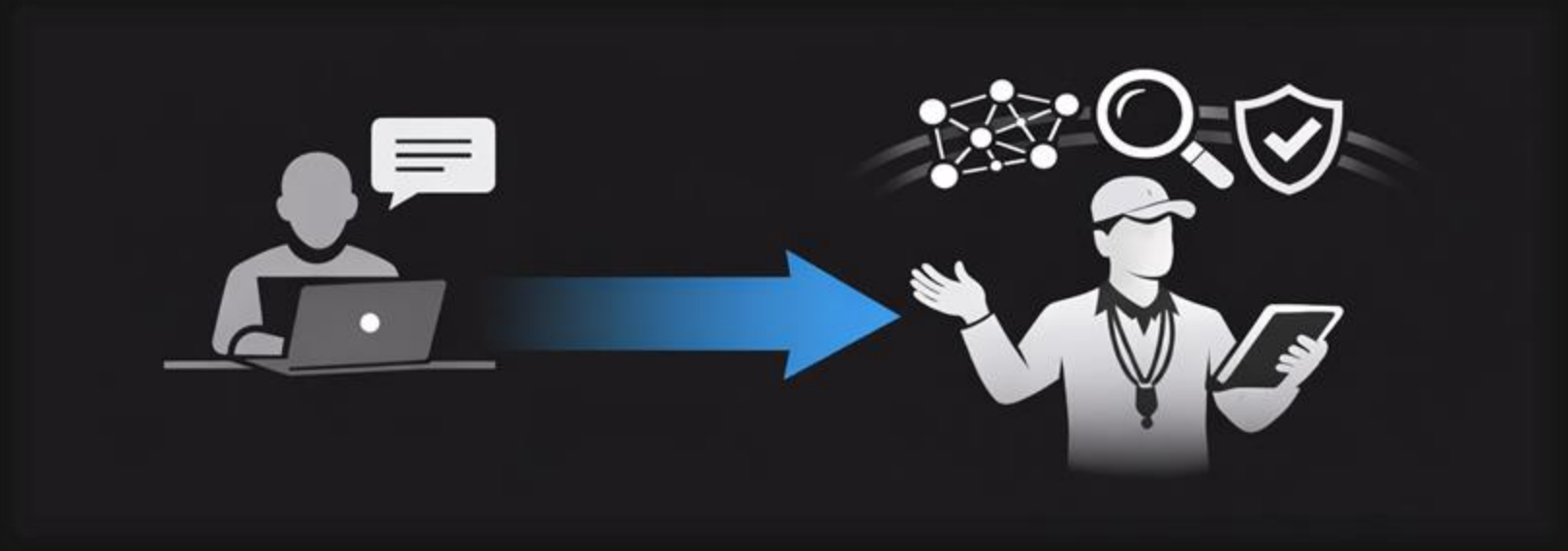
The "Two-Tier" Architecture

- **In Snowflake – this is the Cortex Agent/Analyst flow**
- **Two-tier approach** an Orchestrato routes to Specialist sub-agents.
- **Keep context pure** each specialist is bound to a single semantic model.



A Shift in Thinking

Prompt engineering + **Context engineering** = ***AI Coaches***



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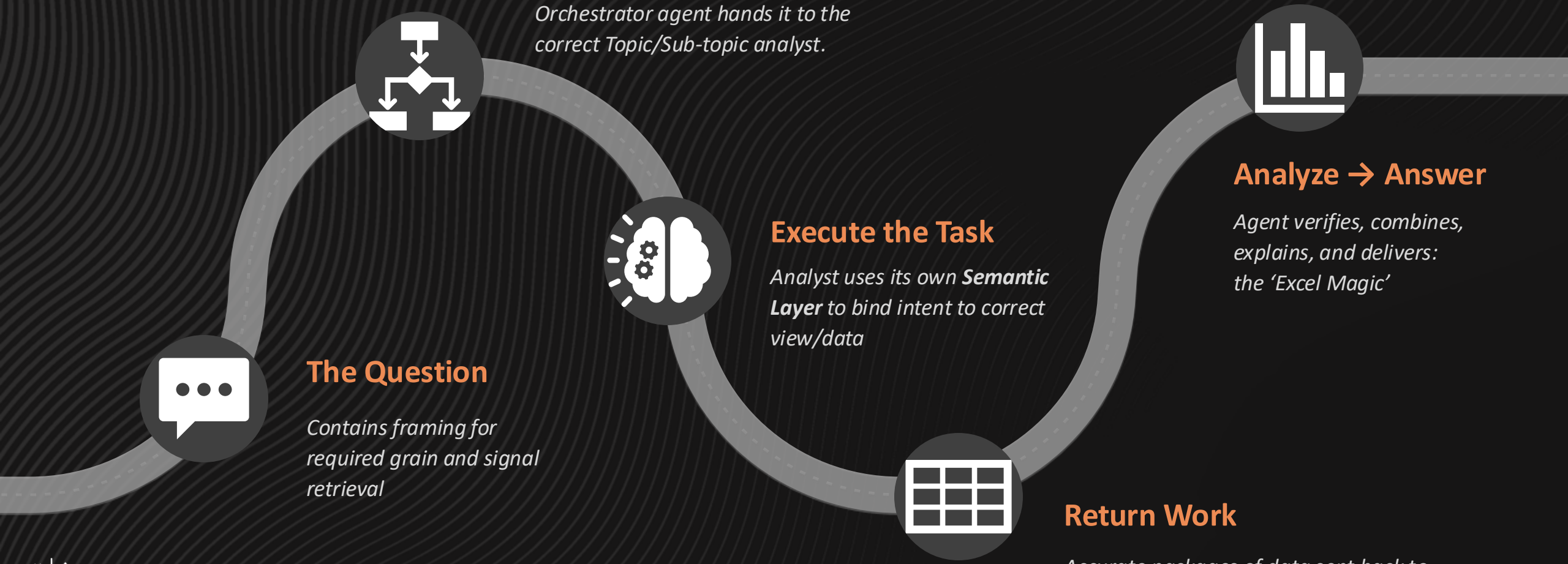
Let’s Revisit our Earlier Example:

*“Create a scatter plot showing how **Intent score for non-branded, price-sensitive topics** correlate with **conversion rate, spend, and organic demand**”*



The Question

Contains framing for required grain and signal retrieval

Route to Analyst

Orchestrator agent hands it to the correct Topic/Sub-topic analyst.

Execute the Task

*Analyst uses its own **Semantic Layer** to bind intent to correct view/data*

Return Work

Accurate packages of data sent back to agent for assembly

Analyze → Answer

Agent verifies, combines, explains, and delivers: the ‘Excel Magic’

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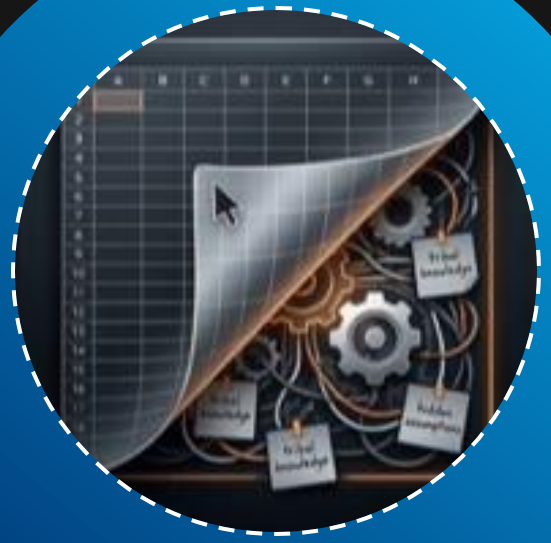
Where to start tomorrow

Audit the "Magic"



Unwind your most trusted report to find hidden assumptions.

Map the tribal knowledge that your AI is currently missing.

Ground the Contract

Locate where meaning lives in your existing technical stack.

Secure a "semantic handshake" before the AI touches data.

Refocus Your Talent

Shift your team from writing prompts to engineering context.

Change the mandate: manage meaning, not just instructions.

Stop chasing **smarter** models. Start building **stronger** meaning.

Thank You. Q&A

Connect with me

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