SQL's Semantic Evolution

The Bridging Solution for the AI Era

The Unyielding Lingua Franca

Stack Overflow 2025 Developer Survey - Database Usage

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PostgreSQL: 55.6%
[PRIMARY DATA SYSTEM]

MySQL: 30.1%
[LEGACY DEPENDENCY]

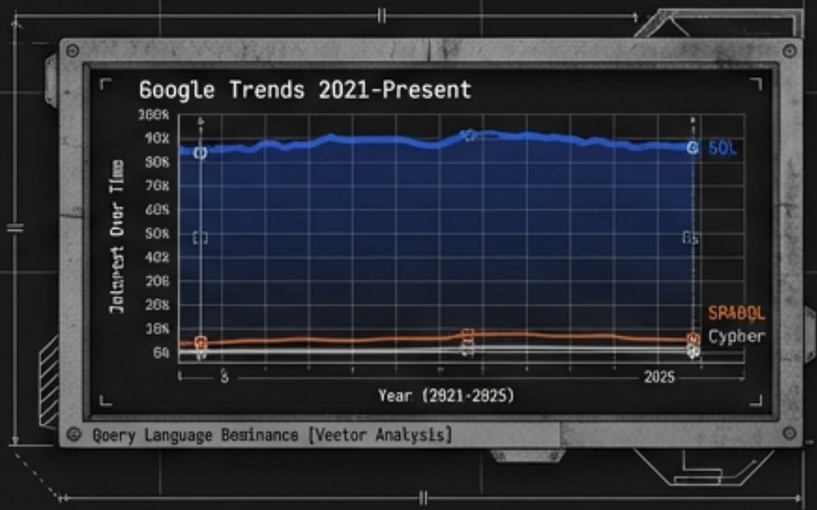
SQLite: 10.3%
[EMBEDDED SOLUTION]

Neo4j: 0.8%
[GRAPH NICHE]

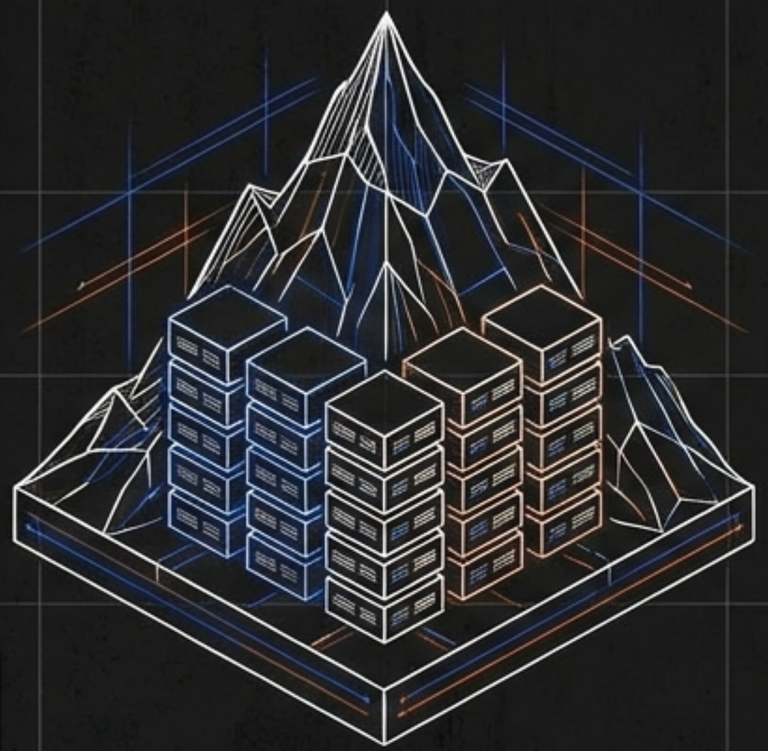
Datomic: 0.2%
[IMMUTABLE EDGE]

The Data Doesn't Lie.

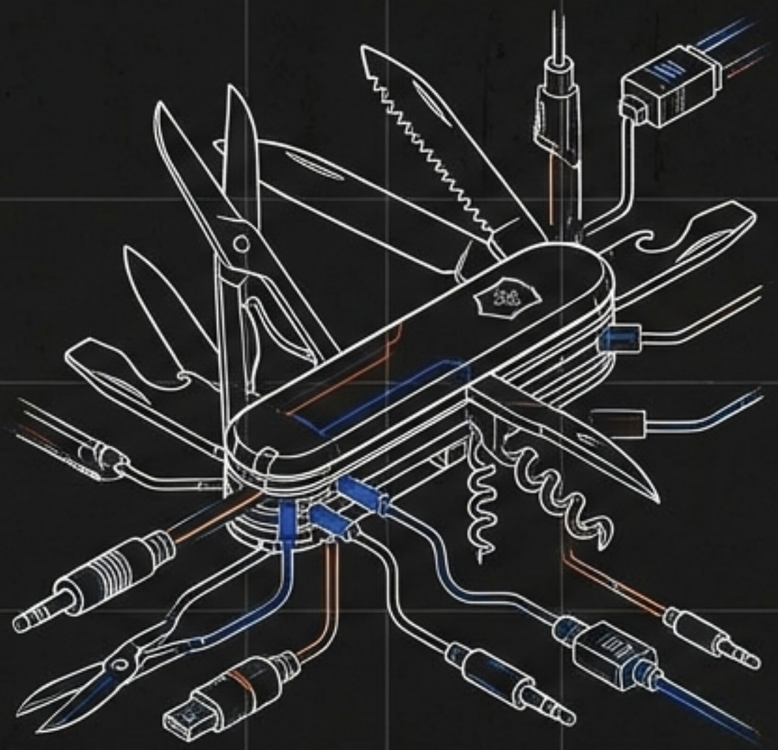
Engineering Truth. Quantified.



Why We Stay with SQL



Scale (Petabytes)



Ecosystem Integration

Decades of Optimization

Declarative Power: Tell the database WHAT you want, not HOW to get it.

The Tabular Limit

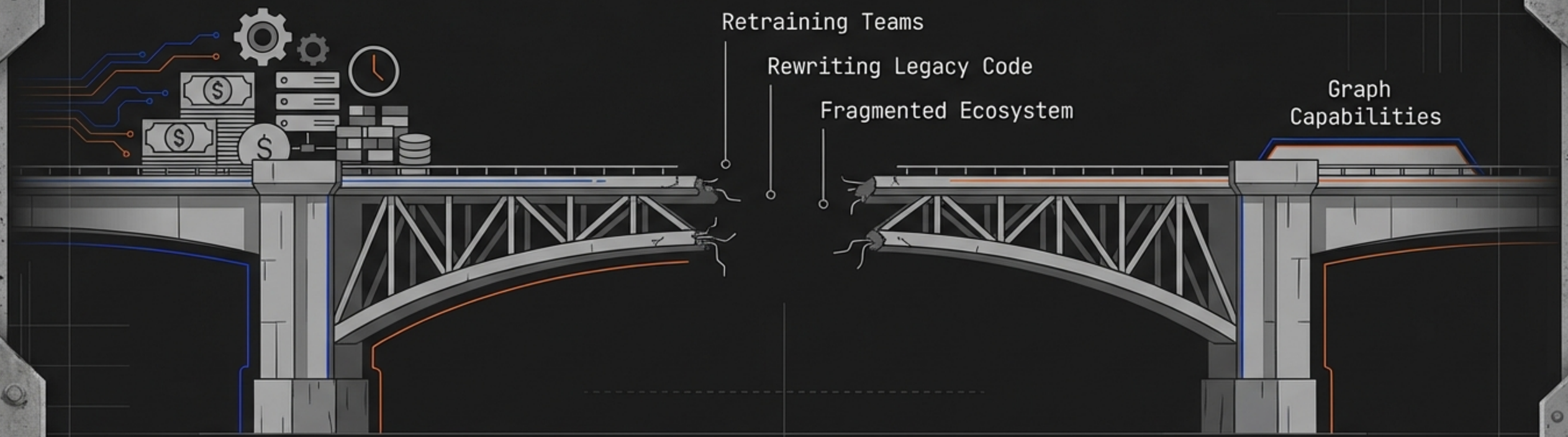
Deep Joins

Lack of Semantics

Rigidity

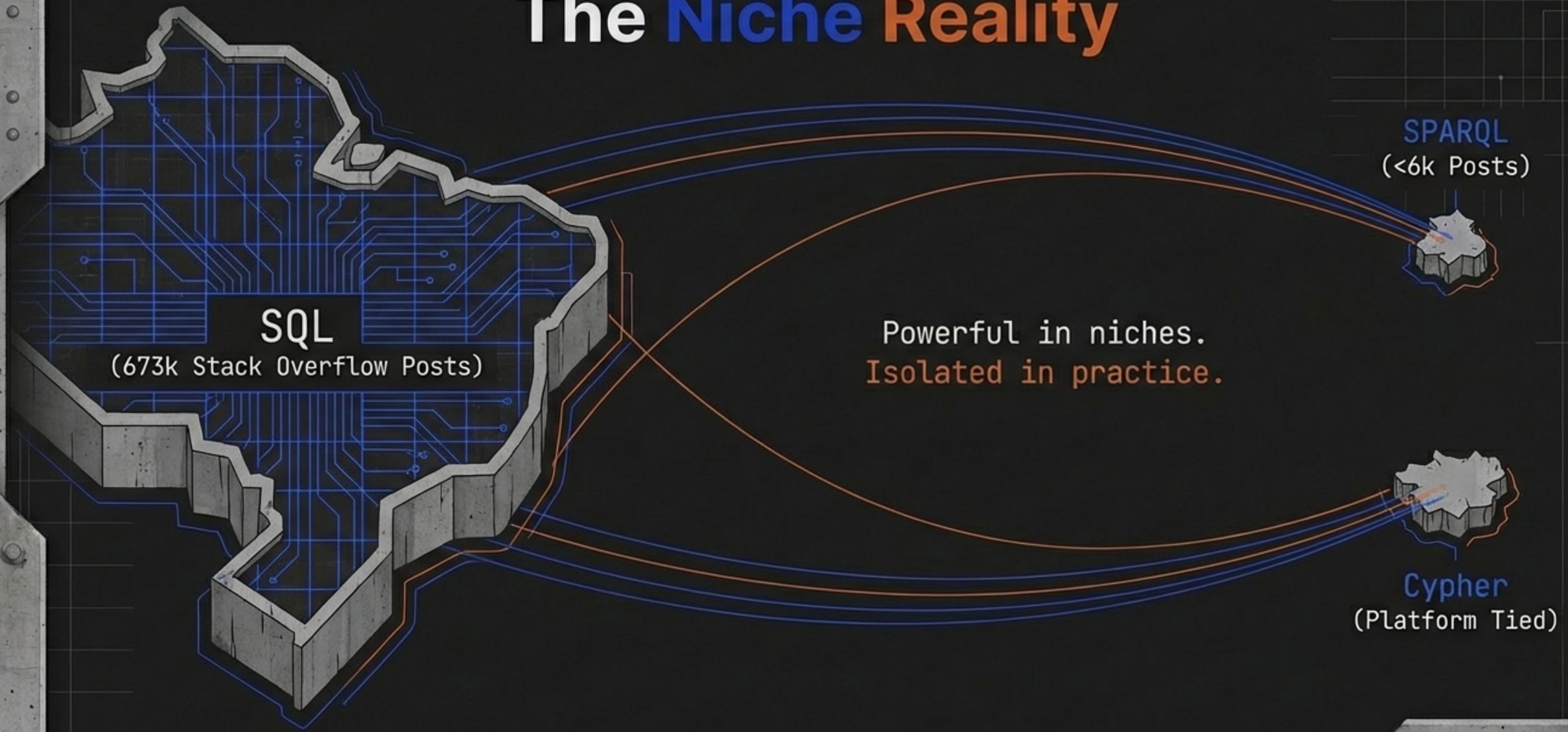
Rows and columns struggle to map the real world.

The “Rip and Replace” Trap

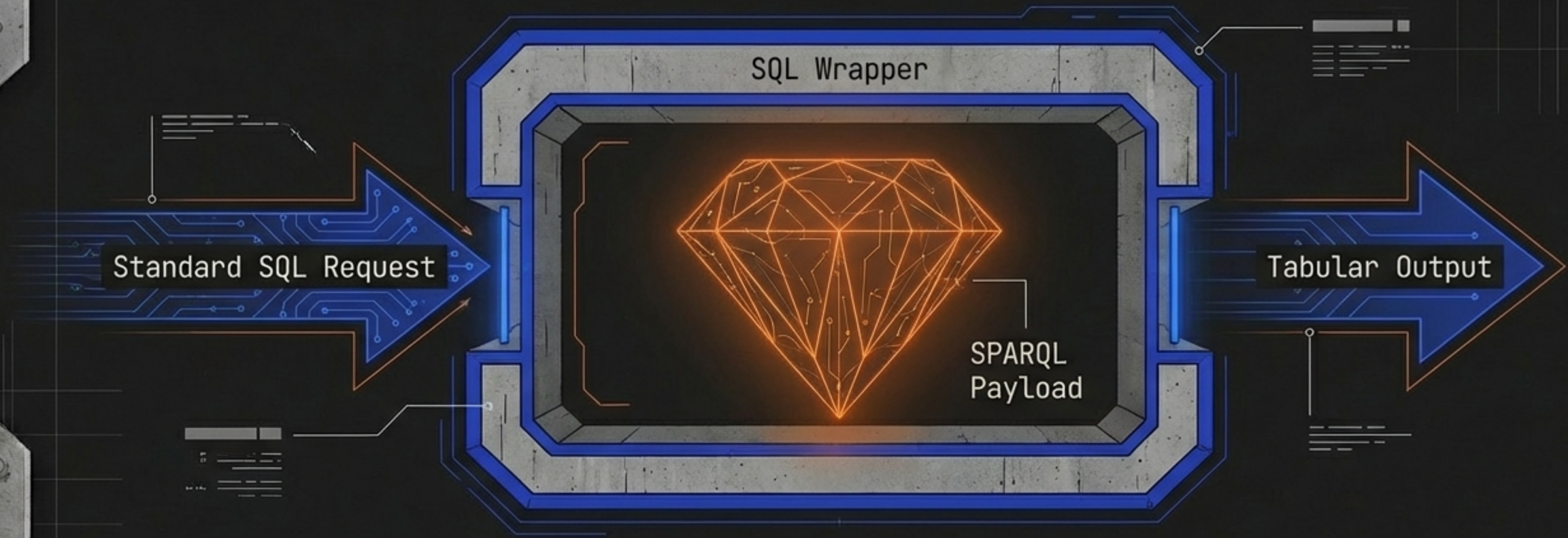


A nightmare rarely worth the investment.

The Niche Reality

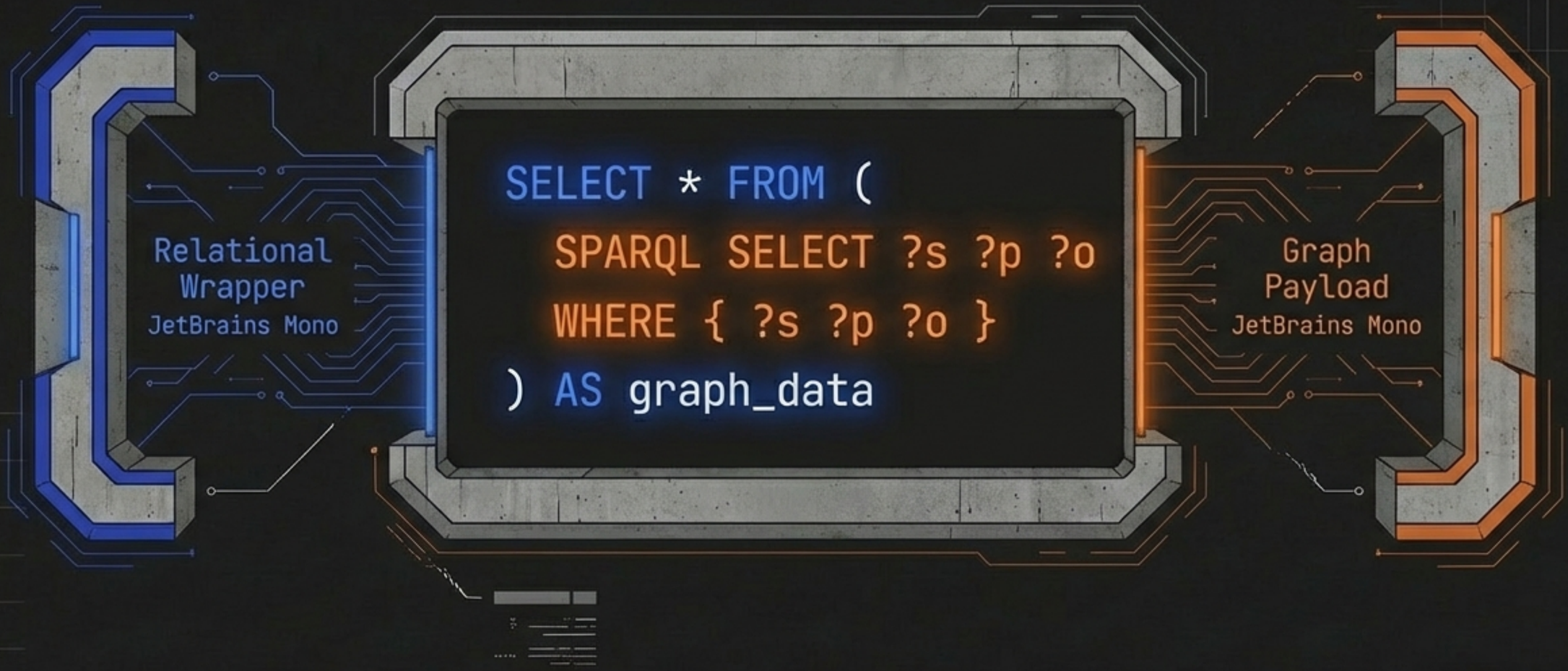


The Pragmatic Solution: SPASQL

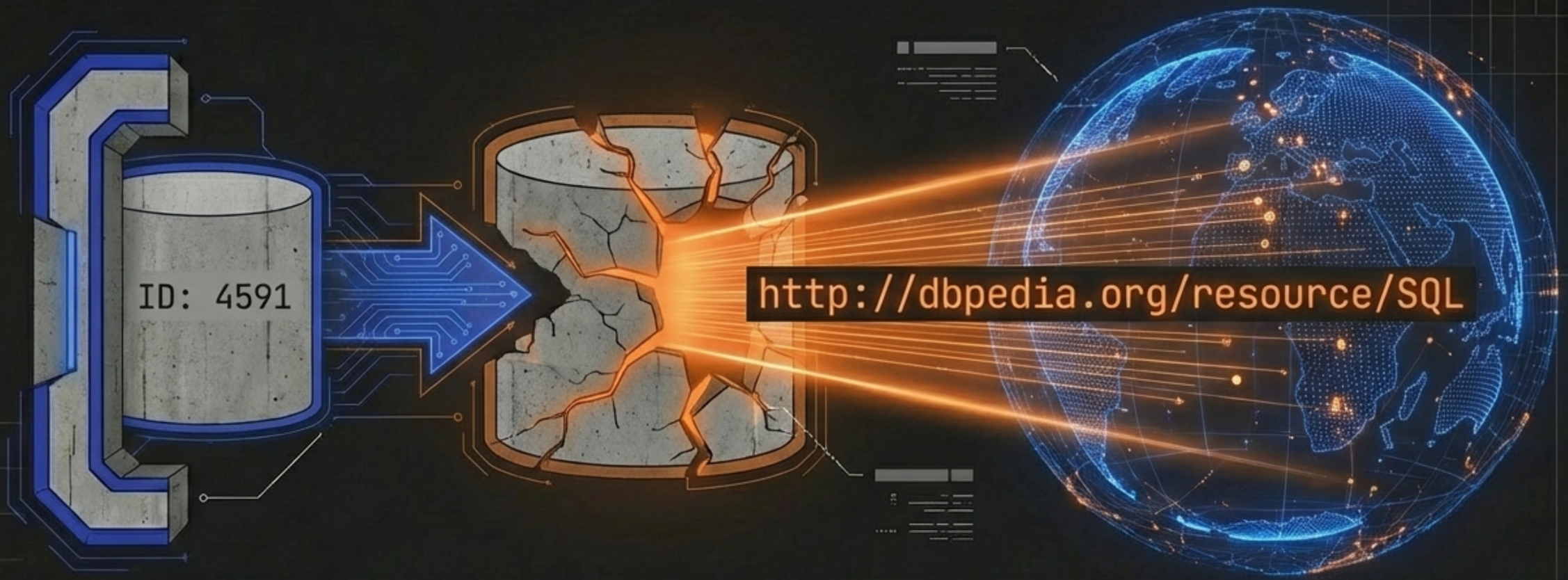


Enhance unobtrusively. Access Graph superpowers
without abandoning the SQL workflow.

Hybrid Syntax in Action

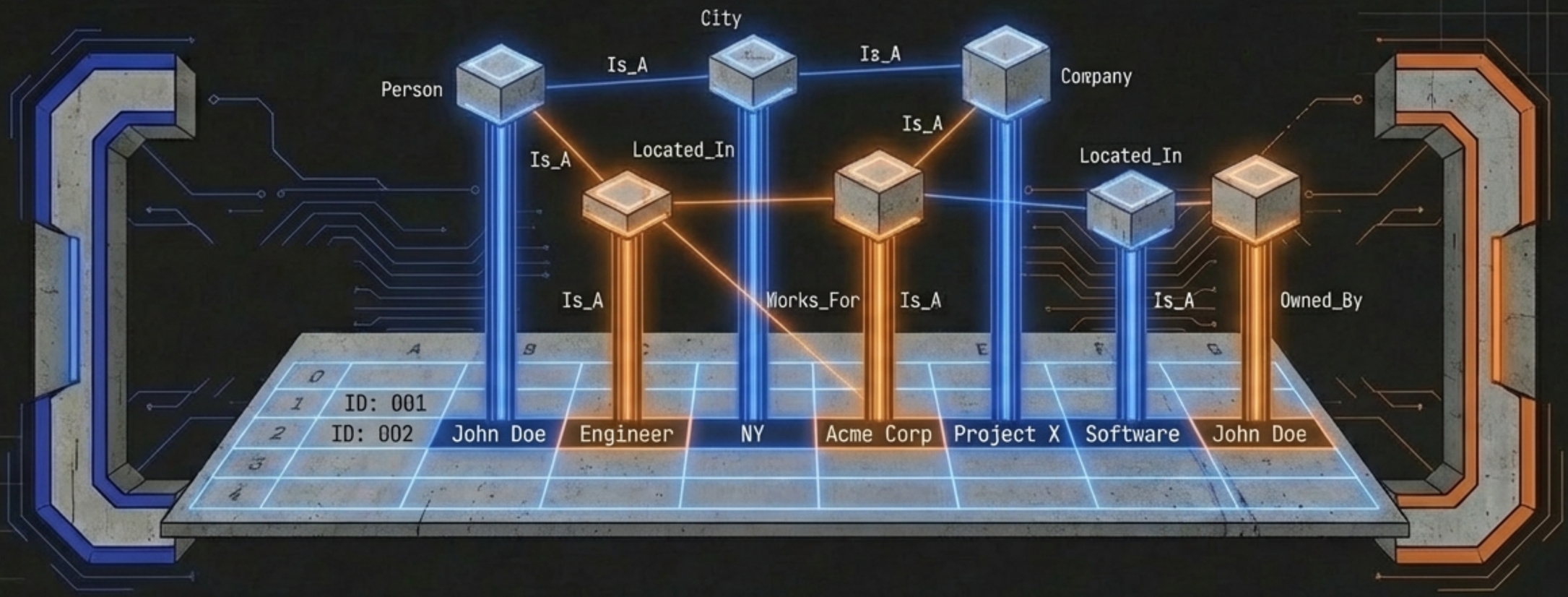


Feature 1: The URI as Super-Key



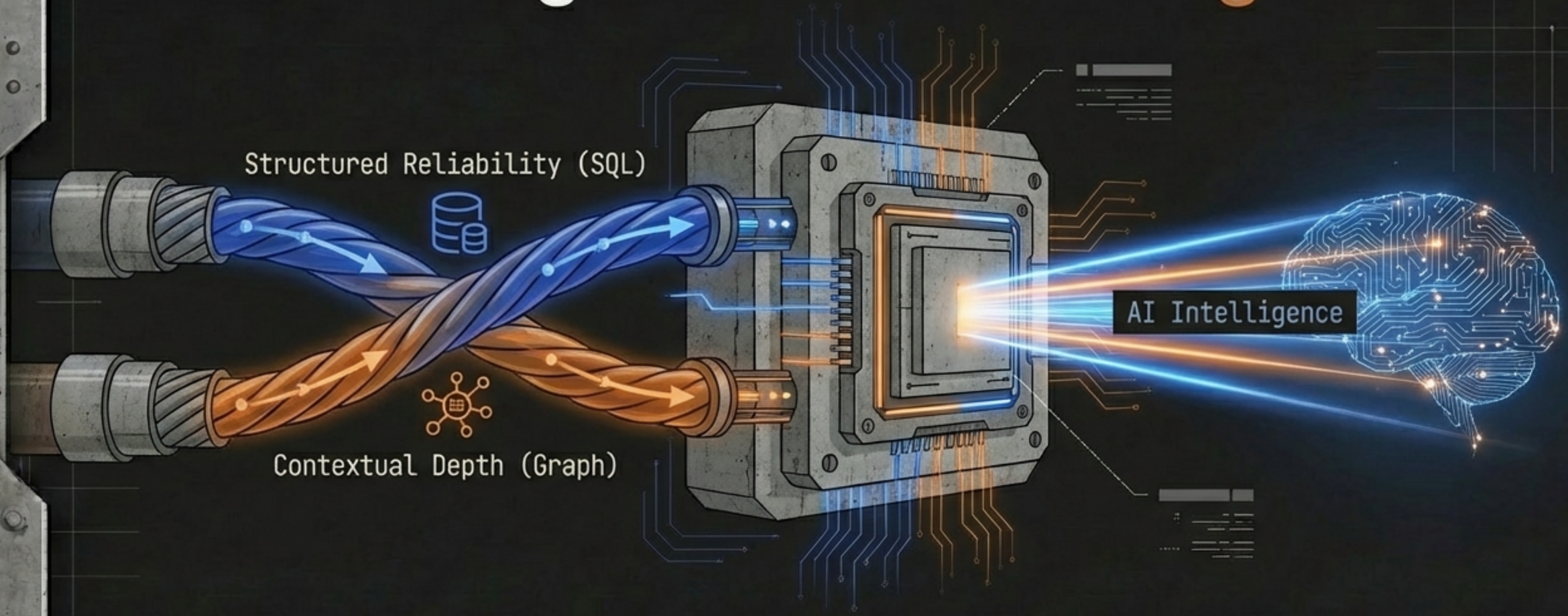
From Local Integers to Global Hyperlinks.

Feature 2: Semantic Enrichment



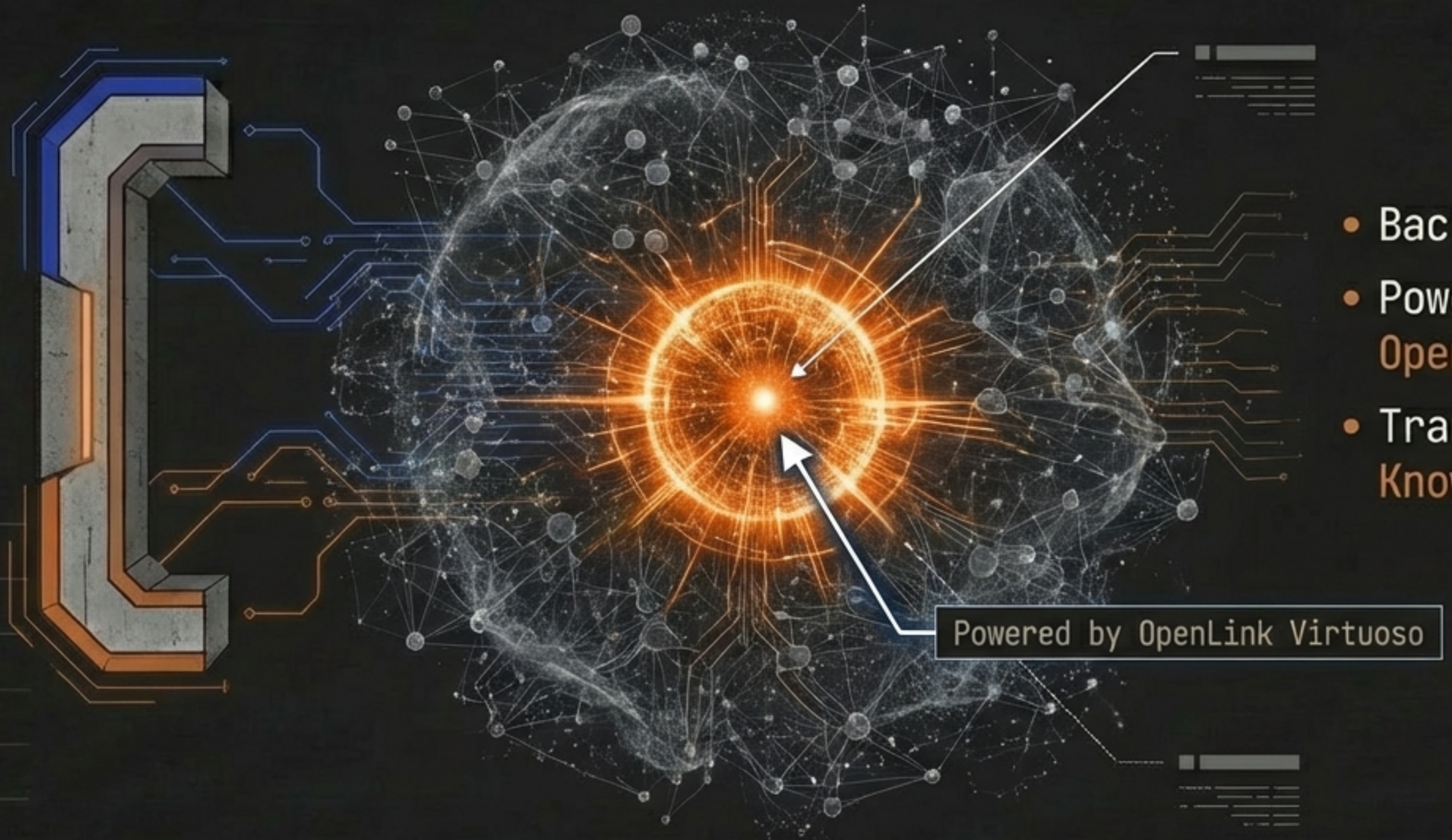
Layering machine-readable semantics on top of relational data.

Fueling the AI Context Engine



AI Agents need context, not just rows. SPASQL delivers Knowledge Graphs via the SQL pipelines you already have.

Proven at Scale: Virtuoso

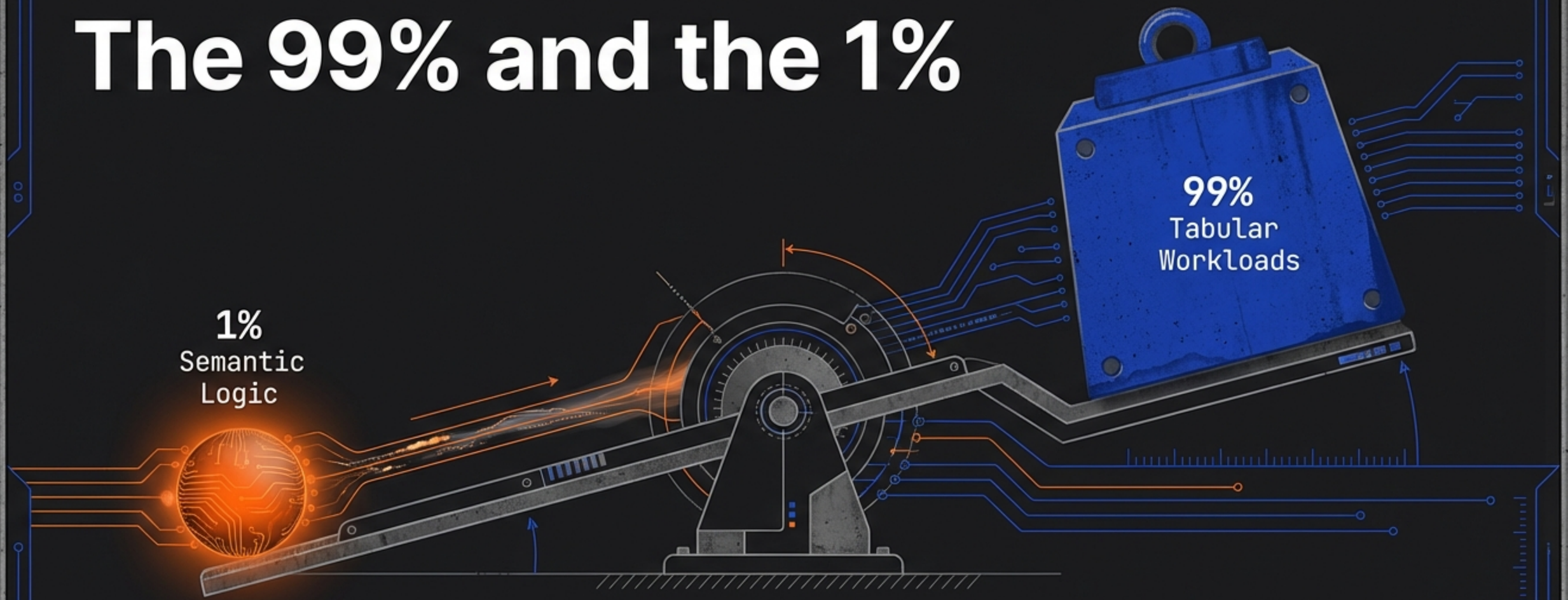


- Backbone of DBpedia
- Powers the Linked Open Data Cloud
- Transforms CSVs into Knowledge Graphs

“Ripping and replacing SQL is a futile quest.”

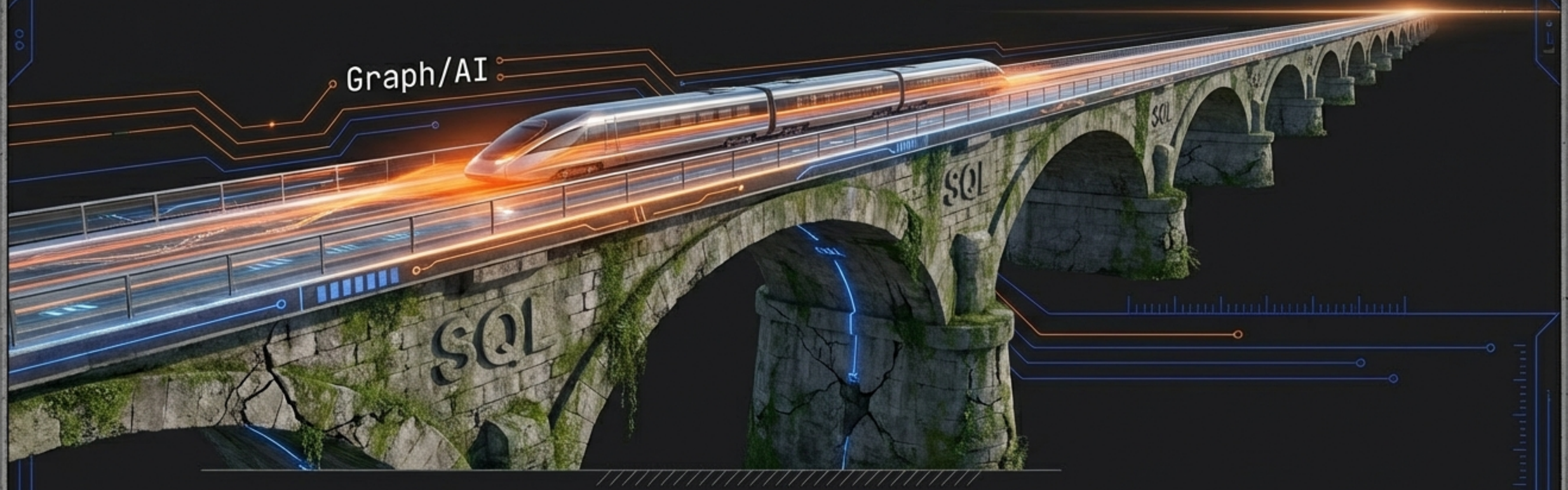
— Kingsley Idehen,
Founder & CEO, OpenLink Software

The 99% and the 1%



The semantic magic creates massive value
when added to the SQL bulk.

The Future is Hybrid



Evolve your SQL. Don’t replace it.