The Representation Stack

A Model of How Reality Becomes Measurable, Optimized, and Interpreted and Where Misalignment Emerges

A. Jacobs | Reality Drift Framework (2023–2026)

Introduction

Many systems appear to be working, with improving metrics, coherent outputs, and justified decisions, yet something still feels off.

The issue is not always incorrect reasoning or failure. It is that what the system is operating on is no longer the underlying reality, but a transformed version of it.

The map keeps updating even after the territory disappears.

The Core Idea

All systems that operate at scale rely on representations, interacting with measurements, metrics, models, and summaries rather than with reality directly.

As information moves through these layers, it is compressed and transformed. The Representation Stack describes this process. It is the structure by which reality becomes something that can be measured, optimized, and explained.

The Stack

The Representation Stack provides a way to examine where and how transformation occurs as reality moves into measurable and interpretable forms.

Layer 0: Reality

The underlying state of the world. Continuous, contextual, and not directly accessible in full.

Layer 1: Measurement

Specific aspects of reality are captured.

- observations
- data collection
- recorded signals

Only what is measured becomes visible.

Layer 2: Metrics

Measurements are aggregated into indicators.

- scores
- KPIs
- standardized outputs

Complex conditions are reduced to comparable values.

Layer 3: Optimization

Systems adjust behavior based on metrics.

- improve performance indicators
- increase efficiency
- meet defined targets

What is measured becomes what is improved.

Layer 4: Representation

Outputs are structured into interpretable forms.

- dashboards
- reports
- interfaces

These appear complete, even when they are partial.

Layer 5: Narrative

Meaning is constructed around representations.

- explanations
- conclusions
- shared understanding

Coherence is imposed on simplified inputs.

Where Error Enters

Each layer introduces compression, and with it a degree of loss that creates the conditions for misalignment. As information moves through the stack, context falls away during measurement, complexity is reduced into metrics, optimization shifts attention toward proxies, underlying

processes become obscured in representation, and ambiguity is resolved into clean narratives. What emerges is not a single point of failure, but a gradual accumulation of error across layers.

Explanatory Power

The Representation Stack explains how systems remain internally coherent even as alignment with underlying reality weakens.

It clarifies:

- why metrics can improve while outcomes feel misaligned
- why outputs can be plausible but incorrect
- why narratives can be convincing but incomplete

This pattern appears across domains:

- healthcare
- education
- media
- AI systems

Structural Consequence

Systems require representation to function, and each transformation introduces distance from underlying reality. As that distance grows, optimization shifts toward what is represented rather than what is real. The Representation Stack makes this distance visible.