

TURNING DATA INTO
WISDOM

THE TRUTH ABOUT ORGANIZATIONAL DATA LITERACY

WHY ORGANIZATIONS STRUGGLE & HOW TO FIX IT

Kevin Hanegan

Agenda

Understanding
the Data
Literacy Gap

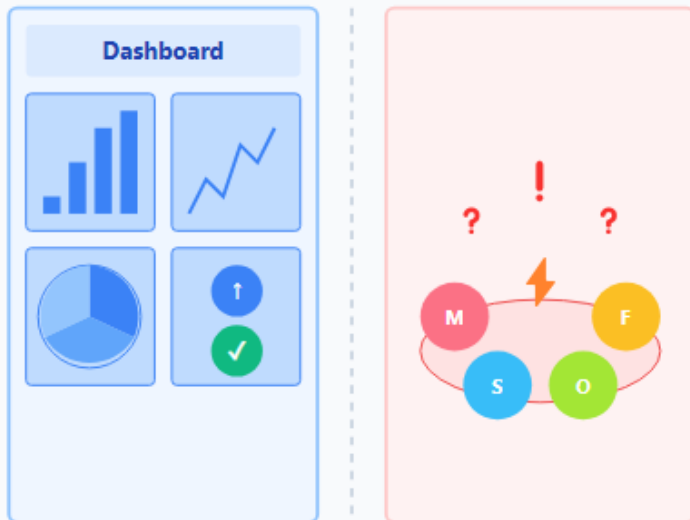
Why Data
Literacy Fails in
Practice

Building a Data-
Informed
Culture

Future-Proofing
Data Literacy
(AI & Decision-
Making in a
Changing World)

Building a Data-
Literate
Organization

Meet DataCo – A Cautionary Tale



Data-rich... but insight-poor

Welcome to DataCo

A mid-sized company that just invested six figures in data tools. Their dashboards? Gorgeous. Their data team? Talented. Their BI access? Company-wide.

But here's the problem

- Marketing still goes with **gut instinct**
- Sales and Ops can't agree on the **same numbers**
- Operations won't act until Finance **approves** the data
- In their last executive meeting, they spent **45 minutes arguing** about which dashboard was "right."

The result?

Everyone has data. But no one's using it effectively

Department Perspectives

M

"We know our customers better than any dashboard."

S

"Our numbers don't match what Operations shows."

O

"We need Finance to sign off before we act."

F

"These numbers can't be trusted yet."

What is Organizational Data Literacy?

Definition

Organizational Data Literacy is the collective ability of an organization's workforce to **understand, interpret, communicate, and apply data effectively in decision-making at all levels**

It extends beyond individual skills, encompassing a **shared culture, common language, and integrated workflows** that enable teams to **trust, challenge, and act** on insights

Key Principles

- Data literacy is not just an individual skill—it's a collective capability
- Every employee, from executives to frontline workers, should be able to trust, question, and use data effectively
- It's about more than dashboards and reports—data literacy requires a culture of curiosity, alignment, and action
- A data-literate organization ensures that insights are clear, accessible, and embedded in everyday workflows

Challenges Organizations Face with Data Literacy

Lack of Trust in Data

Employees question data reliability due to inconsistent quality, outdated metrics, and conflicting reports, leading to reliance on intuition.

Lack of Data Fluency

Knowing data terms doesn't ensure understanding. Employees struggle to interpret insights and challenge flawed metrics without proper guidance.

Data Literacy Without Action

Access to data tools doesn't mean usage. Cultural resistance and lack of leadership support hinder active data-driven decision-making.

Data Silos & Collaboration Issues

Different teams use varied definitions for key metrics, causing misalignment. Data must flow freely across departments for coherence.

Infrastructure & Accessibility Problems

Organizations store data efficiently but fail to make it accessible and actionable for decision-makers, missing timely insights.

Uncertainty & Ethical Challenges

Employees fear mistakes with data, avoiding experimentation. Training is needed to handle AI-driven insights and ethical considerations.

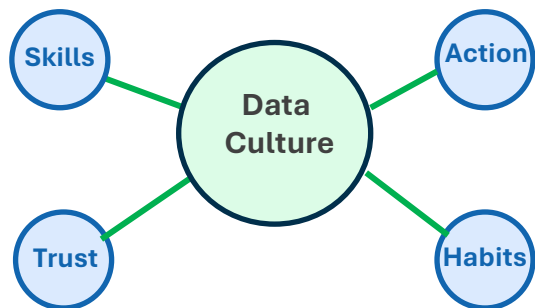
Data Literacy Isn't Broken – Our Approach Is

What We Want

- Collective ability to understand, interpret, and apply data
- Shared culture and common language
- Data used in everyday decision-making
- Trust, challenge, and action built into workflows

What Gets In The Way

- Low trust in data
- Data tools ≠ data usage
- Siloed, inconsistent metrics
- Overload, fear, and hesitation
- Training without behavior change



Most organizations don't have a data tool problem — they have a data trust and behavior problem

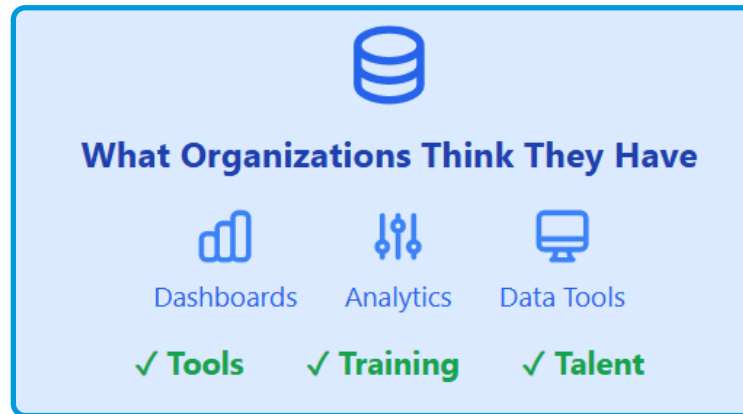
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THE ILLUSION OF DATA LITERACY

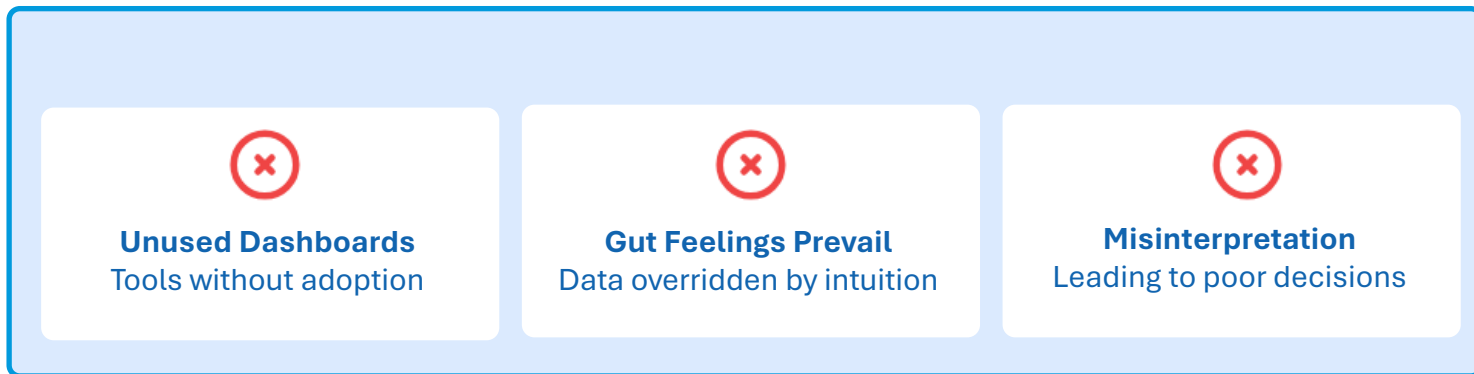
Why Organizations Think They're Data-Driven (But Aren't)

The Illusion of Data Literacy

Organizations believe they're becoming data-driven because they've invested in data infrastructure, but the gap between having data and effectively using it remains massive

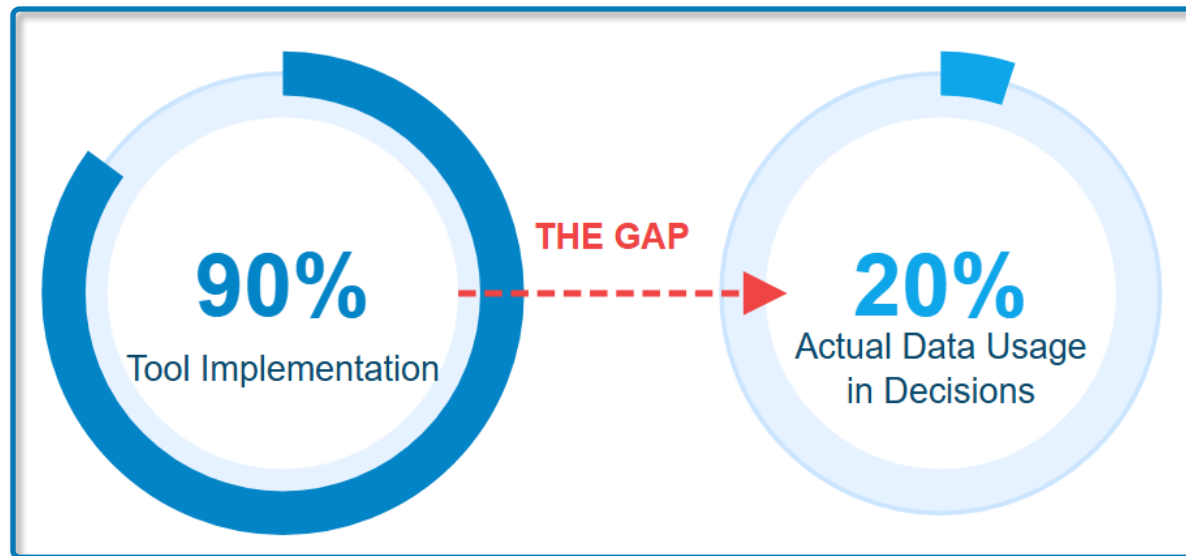


The Gap



Illusion #1 - Access to Data Tools = Usage

Buying a gym membership won't make you fit. Organizations invest in BI tools and training, but unless employees actively use data in daily decision-making, data literacy won't improve



The Analogy

Gym Membership \neq Fitness

Buy-in doesn't equal usage

The Problem

Tool Access \neq Literacy

No behavior change = no impact

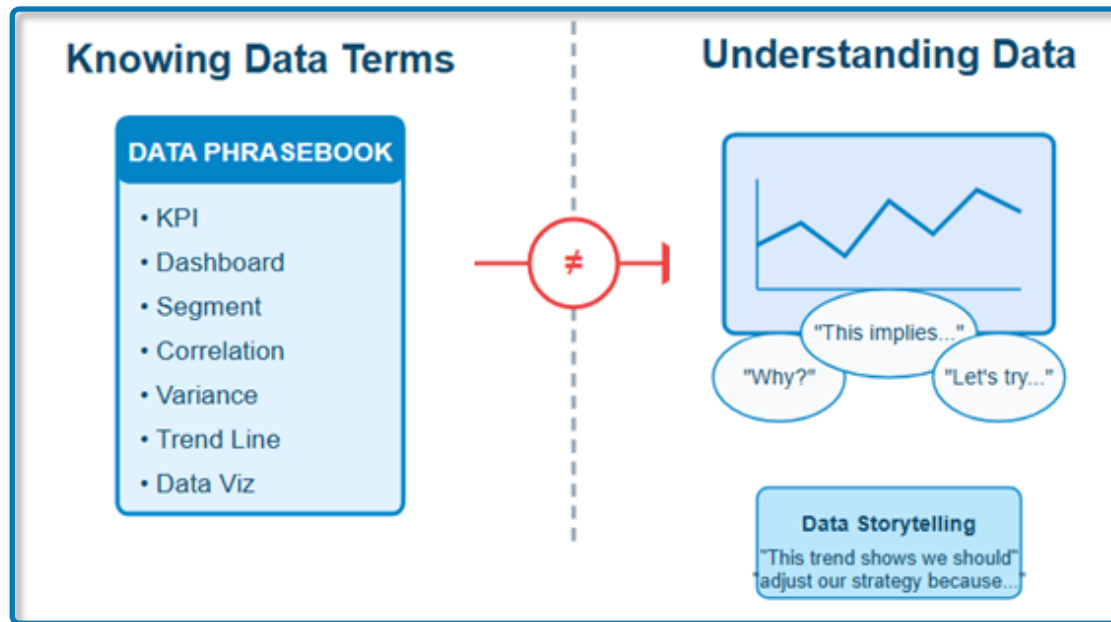
The Fix

Build Daily Data Habits

Make usage visible, easy, and contextual

Illusion #2 - Knowing Data Terms vs Understanding Data

A phrasebook won't make you fluent. Most data literacy programs teach employees how to navigate dashboards but fail to build true data fluency



The Analogy

Phrasebook ≠ Fluency

Terms alone don't build thinking

The Problem

Chart Skills ≠ Insight Skills

People can click, but can't interpret

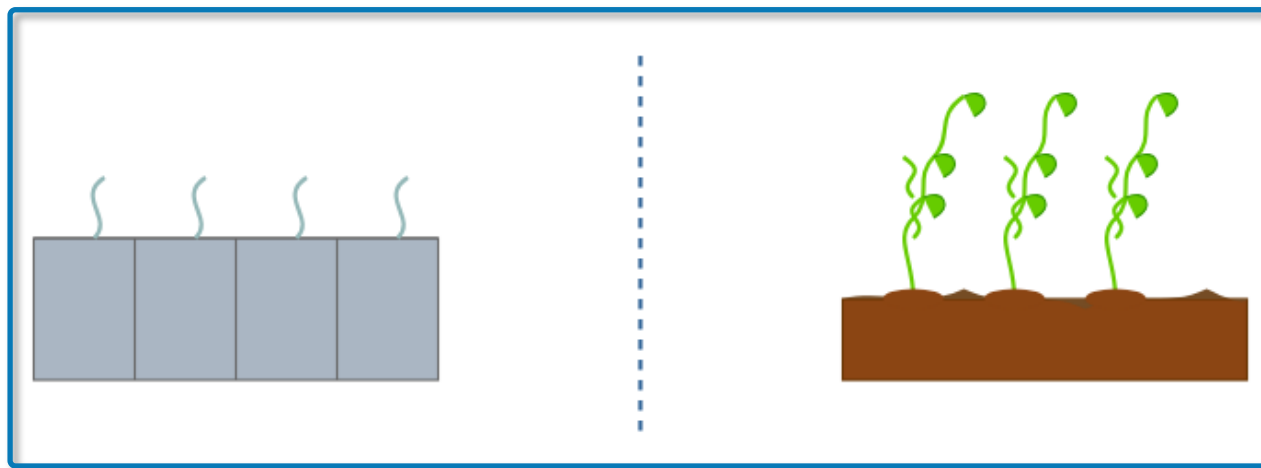
The Fix

Train for Fluency, Not Features

Use real scenarios to build storytelling & critical thinking

Illusion #3 - You Can Train Data Literacy without Changing Culture

You can't plant a garden on concrete. Organizations invest in dashboards, KPIs, and data literacy programs, but if the underlying culture isn't ready, these efforts won't take root



The Analogy

Concrete \neq Soil

Without culture, nothing grows

The Problem

Training Won't Stick

Fear, habit, and no role modeling block change

The Fix

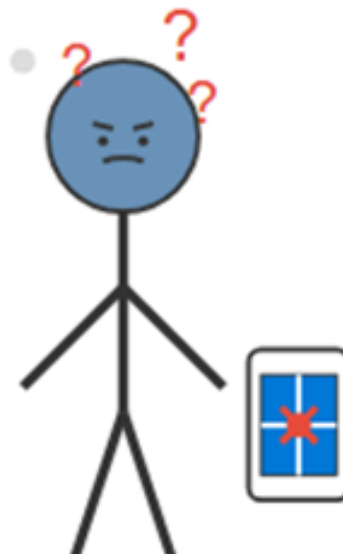
Build Cultural Foundations

Model behaviors, enable safety, promote collaboration

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WHY PEOPLE DON'T TRUST DATA AND HOW TO FIX IT

If people don't trust the map, they'll ignore the GPS



The Analogy

Bad GPS = Ignored GPS

If the map feels wrong, no one follows it

The Problem

No Trust Without Transparency

Outdated, unclear, or unexplained data gets ignored

The Fix

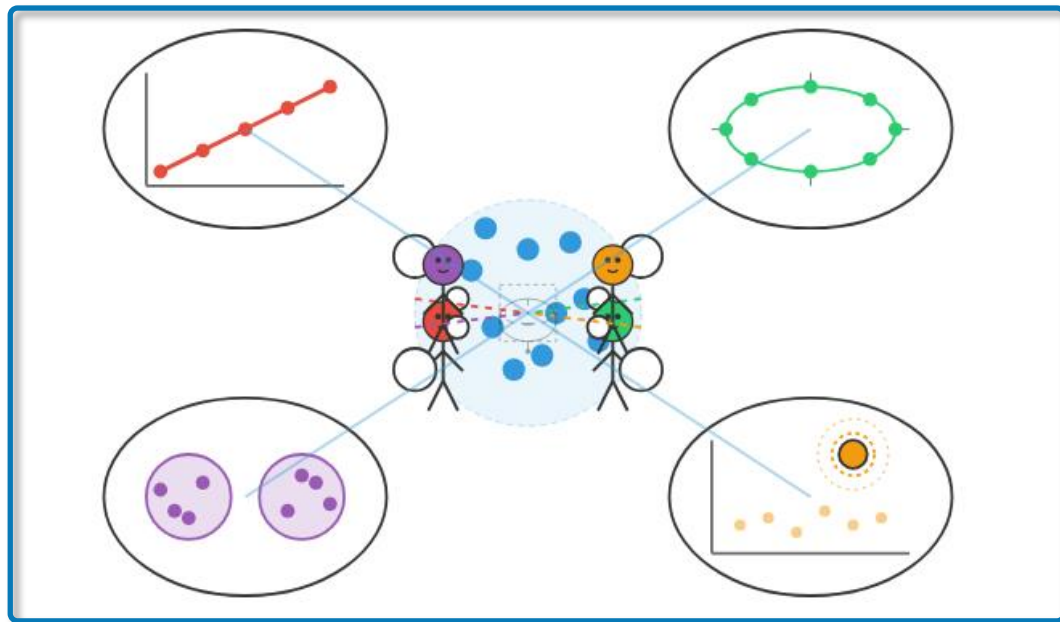
Make Data Transparent

Show the “why” behind the numbers

Use trust-building tools (e.g. Data Courtroom, Trust Score)

Trust Issue #2 – Employees Assume Dashboards Provide Absolute Truth

Data is not a single truth, but
an interpretation of reality



The Analogy

Schrödinger's Dashboard

Data can be true and misleading

The Problem

Conflicting Dashboards =
Confused Decisions

Teams debate truth instead of acting

The Fix

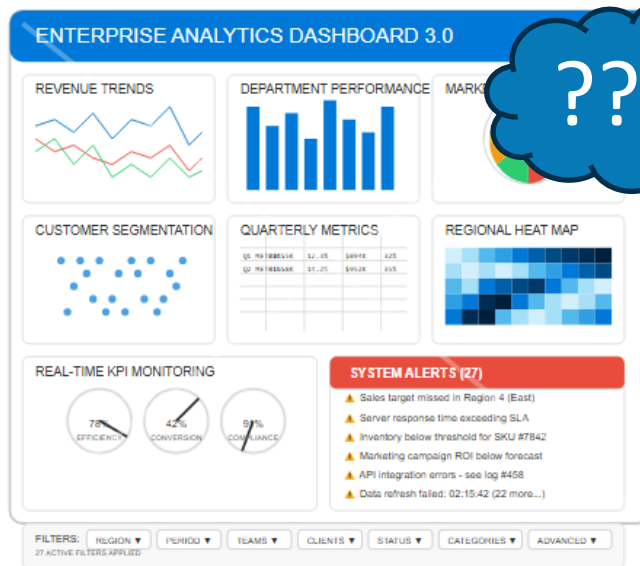
Teach Teams to Interpret, Not Obey

Standardize metrics
Use real cases to
explore multiple meanings

Trust Issue #3 – Employees Feel Overwhelmed by Too Much Data

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Companies overwhelm employees with too much data, making it harder to extract insights



The Analogy

Water ≠ Always Helpful

Too much data = drowning, not insight

The Problem

Overload Causes Paralysis

People can't find what matters

The Fix

Curate, Don't Dump

Focus on key metrics

Make dashboards clearer, not denser

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INSIGHTS VS. INFORMATION

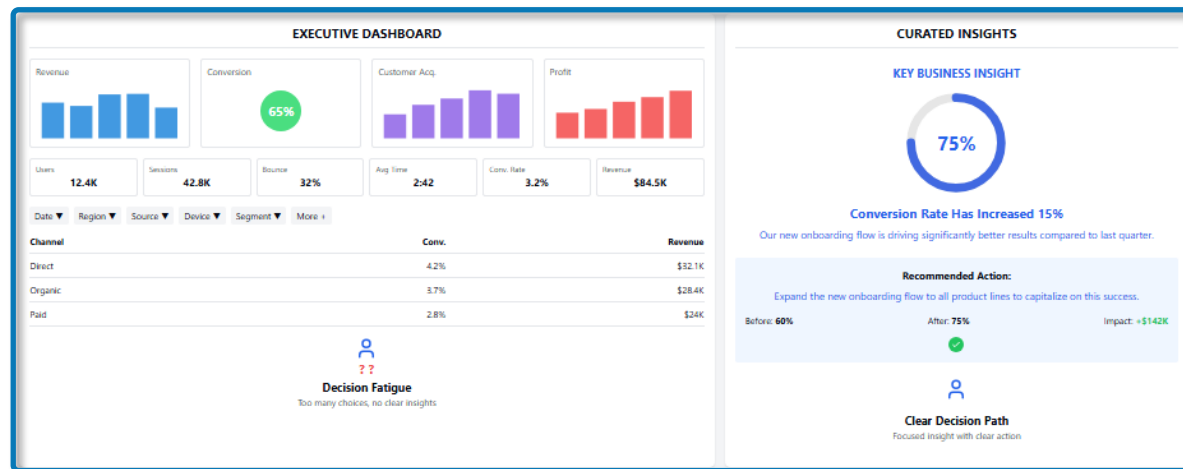
WHY PEOPLE NEED MEANING, NOT JUST DATA

Employees Don't Want Raw Data – They Need Insights

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Employees want
actionable insights,
not raw numbers.

Too Much Data
Leads to Decision
Fatigue



The Analogy

Raw Ingredients ≠ A Meal

Don't make employees cook their own
insights

The Problem

Surface-Level Thinking

Raw data leads to shallow analysis
and missteps

The Fix

Serve Insights, Not Just Numbers

Highlight takeaways

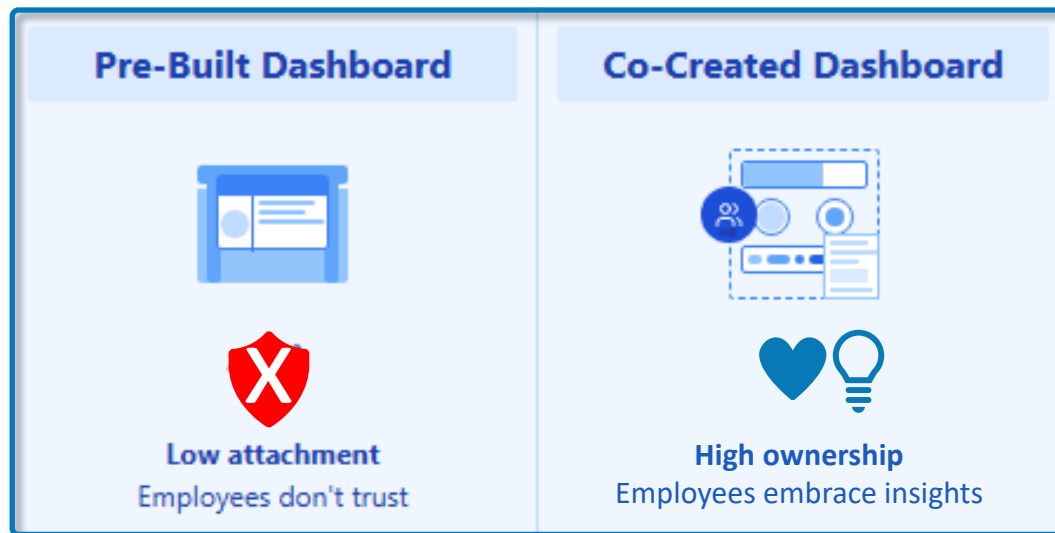
Use data storytelling

Trim the dashboard fat

Employees Trust Data More When They Help Shape It

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Employees trust data they
help build more than
prebuilt reports



The Analogy

IKEA Effect

We trust what we help build

The Problem

No Ownership = No Engagement

People ignore what they didn't co-create

The Fix

Co-Create KPIs & Reports

Let teams shape what matters

Encourage early data interaction

Build trust through collaboration

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DATA LITERACY AS A TEAM SPORT

MAKING DATA A SHARED RESPONSIBILITY

Challenge #1: Different Definitions

Department Silos vs Collaboration

Dept	Revenue
Sales	Bookings
Mktg	Pipeline
Finance	Recognized
Ops	Billings

The Problem

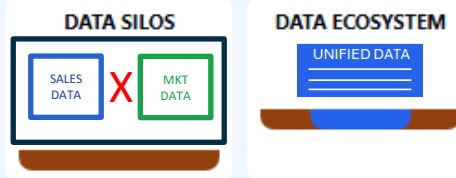
- Conflicting KPIs = Confused Decisions
- Teams debate instead of act
- No alignment = team loses
- Different numbers for same metrics

The Fix

- Create a Shared KPI Dictionary
- One source of truth
- Align definitions across teams
- Train on usage for decision-making

Challenge #2: Data Access & Sharing

Data Silos vs Data Ecosystem



The Problem

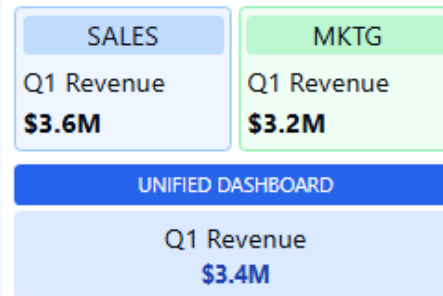
- Data hoarding slows insight
- Storage without access kills momentum
- Silos kill scale
- Insights stay locked away

The Fix

- Make data dynamic
- Enable real-time access
- Build a data-sharing culture
- Promote collaboration over competition

Challenge #3: Multiple Dashboards

Before vs After



The Problem

- Report Shopping
- Teams pick data that fits their story
- Different numbers for same metrics
- Decisions based on department bias

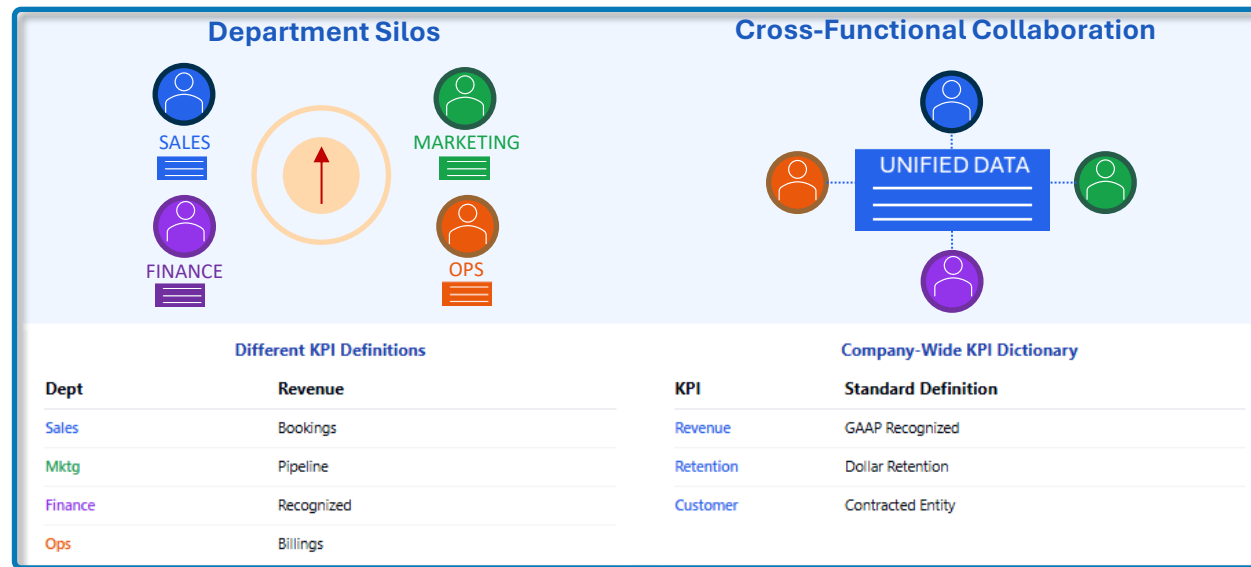
The Fix

- One Dashboard, One Truth
- Standardize core metrics
- Sync data in real time
- Cut duplicate reports

Different Teams Use Different Definitions of Key Metrics

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Data silos lead to
conflicting metrics and
duplicate efforts



The Analogy

Everyone Runs a Different Play

No alignment = team loses

The Problem

Conflicting KPIs = Confused
Decisions

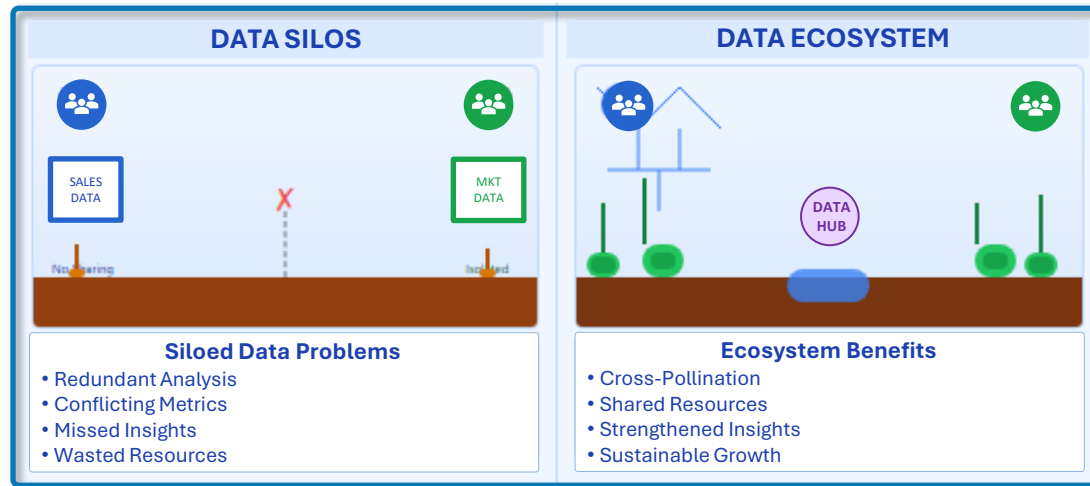
Teams debate instead of act

The Fix

Create a Shared KPI Dictionary

One source of truth
Align definitions across teams
Train on usage for decision-making

Data literacy isn't a one-time project—it requires continuous nurturing. Data culture thrives when knowledge is shared



The Analogy

Data Ecosystem > Data Silos

When teams share, everyone thrives

The Problem

Silos Kill Scale

Insights stay locked away, knowledge disappears

The Fix

Build a Data-Sharing Culture

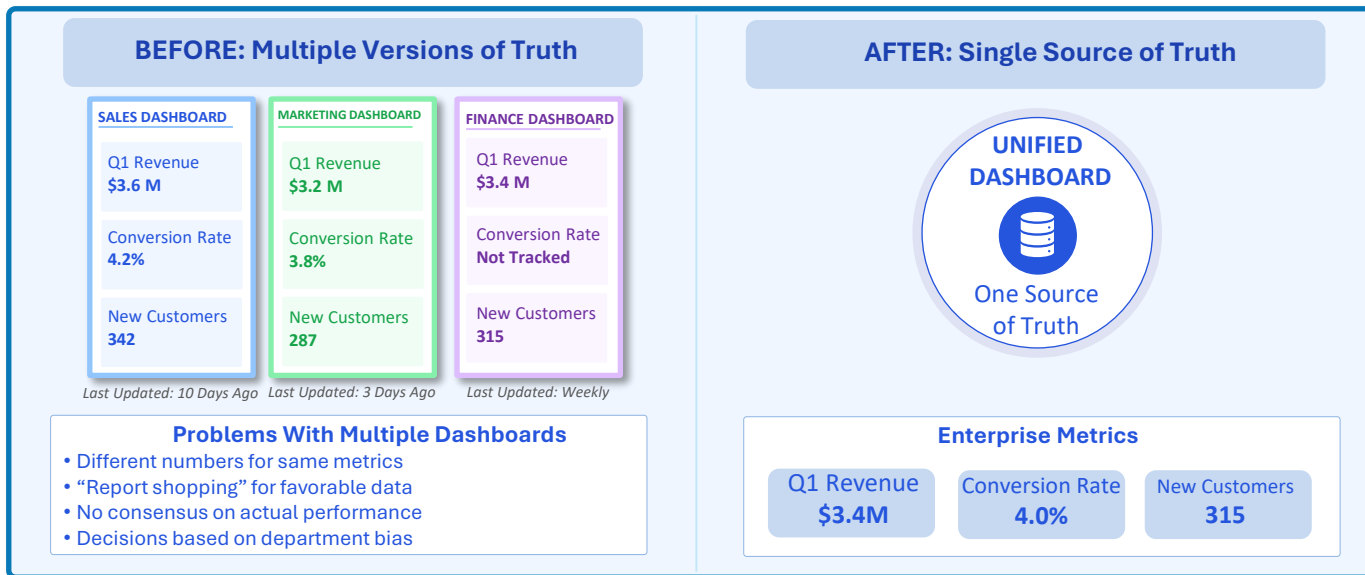
Promote collaboration over competition

Set clear ownership + sharing rules

Assign data stewards for access & quality

The One Truth Dashboard (Aligning Business Metrics)

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The Analogy

Same Game, Different
Scoreboards

No alignment = bad decisions

The Problem

Report Shopping

Teams pick data that fits their story

The Fix

One Dashboard, One Truth

Standardize core metrics
Sync data in real time
Cut duplicate reports

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THE FUTURE OF DATA LITERACY

MOVING BEYOND CHECKLISTS TO REAL BEHAVIOR CHANGE

Challenge #1: Accessibility



DATA LAKE vs DATA REEF

STAGNANT



DYNAMIC



"Data isn't something you store; it's something you interact with"

Data Lake Problems

- Data hoarding without usage
- Difficult to find valuable insights
- Limited accessibility
- Passive storage, not active analysis

The Fix: Make Data Dynamic

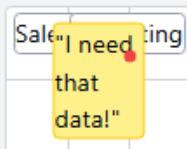
- Enable real-time access
- Use interactive dashboards
- Help teams fish for insights

Challenge #2: Flow

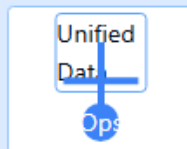


DATA SILOS vs OPTIMIZED FLOW

POOR FLOW



SMOOTH FLOW



"Pipes without water are just empty plumbing"

Data Flow Problems

- Blockages & bottlenecks
- Leaky, inconsistent data
- Slow access time
- Siloed information

The Fix: Enable Flow

- Make data flow where needed
- Automate insight delivery
- Break silos across teams

Challenge #3: Learning

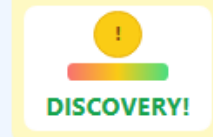


FAILURE vs DISCOVERY

FEAR



GROWTH



"Mistakes with data should be learning moments, not punishable offenses"

When Data Failures Are Feared

- Experimentation is discouraged
- Insights remain surface-level
- Mistakes are hidden, not learned from
- Teams prioritize safe answers over truth

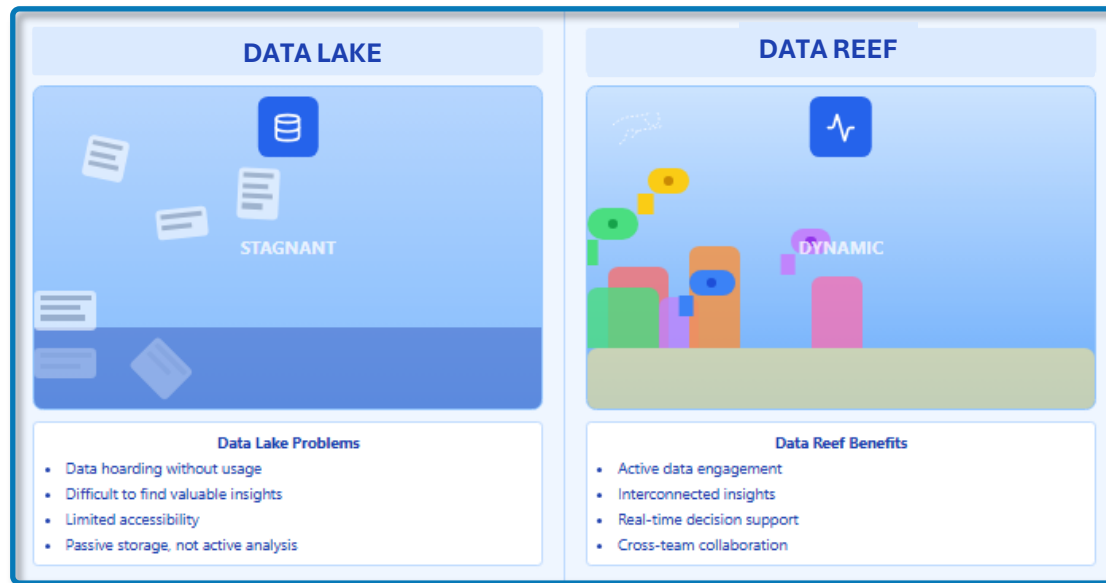
The Fix: Normalize Experimentation

- Reward testing, not just being right
- Create feedback loops
- Talk openly about data missteps
- Turn failures into opportunities

Data is Stored, But Employees Can't Access or Use It Effectively

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Data isn't something you store; it's something you interact with. Data must be constantly connected and accessible



The Analogy

Data Lake ≠ Data Reef

Storing isn't the same as engaging

The Problem

Data Hoarding Slows Insight

Storage without access kills momentum

The Fix

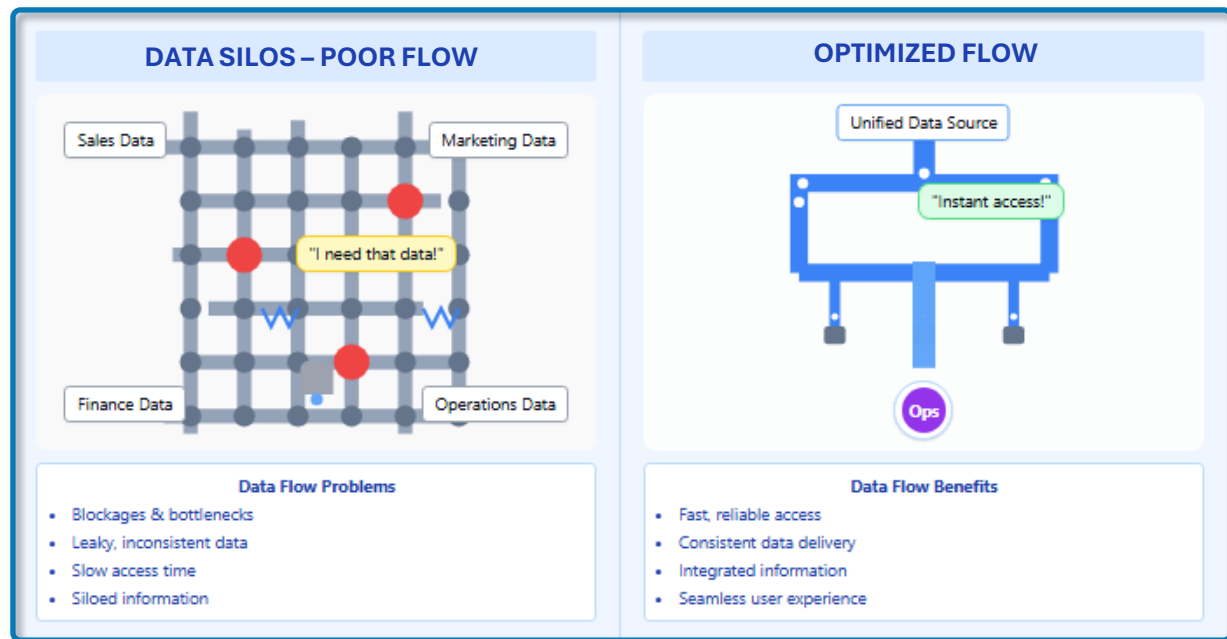
Make Data Dynamic

Enable real-time access
Use interactive dashboards
Help teams fish for insights, not just store info

Employees Don't Receive Insights When They Need Them

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A company can have the most sophisticated data infrastructure, but if data doesn't reach the people who need it, it's as useless as a house with pipes but no running water



The Analogy

Pipes Without Water

Great plumbing, but nothing flows

The Problem

Insights Don't Reach Decision-Makers

Data gets stuck in systems or stuck at the top

The Fix

Make Data Flow Where It's Needed

Automate insight delivery
Break silos across teams
Push data into tools people already use

Mistakes with data should be learning moments, not punishable offenses. Real data literacy isn't about always being right—it's about being comfortable with uncertainty and learning from mistakes



The Analogy

Science Learns From Failure

Data errors = insight opportunities

The Problem

Certainty Over Curiosity

Teams fear being wrong, so they stop exploring

The Fix

Normalize Experimentation

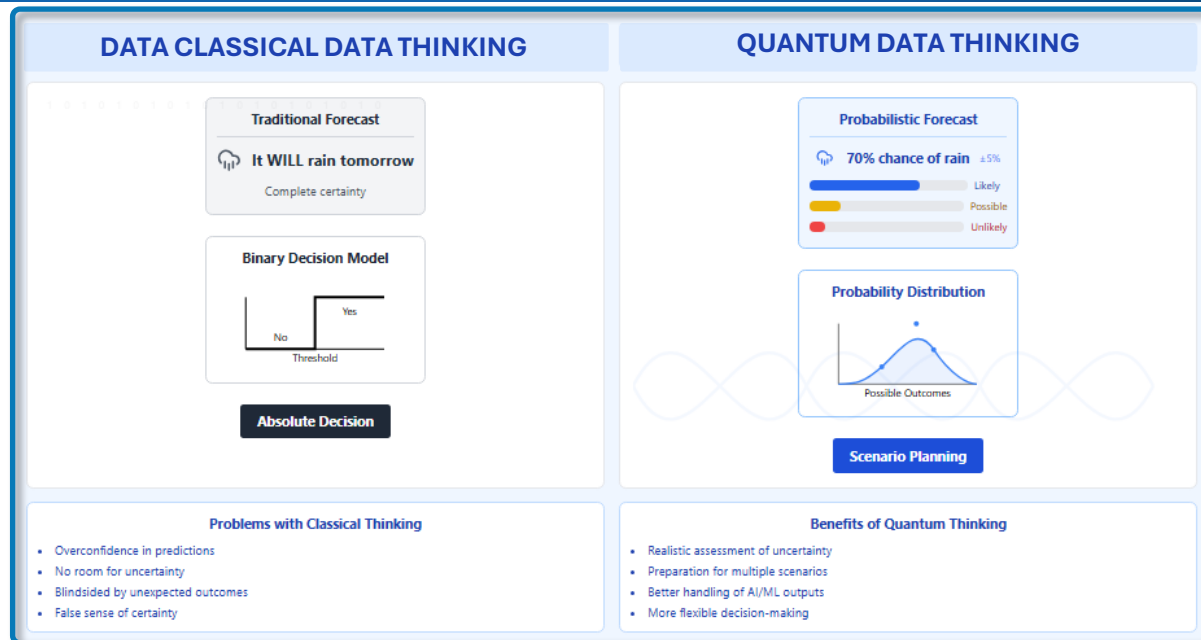
Reward testing, not just being right
Create feedback loops
Talk openly about data missteps

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AI & DATA LITERACY IN THE QUANTUM AGE

HOW AI AND UNCERTAINTY CHANGE THE GAME

Binary thinking
doesn't work in an AI-
driven world - AI works
in probabilities, not
certainties



The Analogy

Quantum Thinking > Binary Thinking

AI gives probabilities, not guarantees

The Problem

Blind Trust in AI

Assuming outputs are facts = risky decisions

The Fix

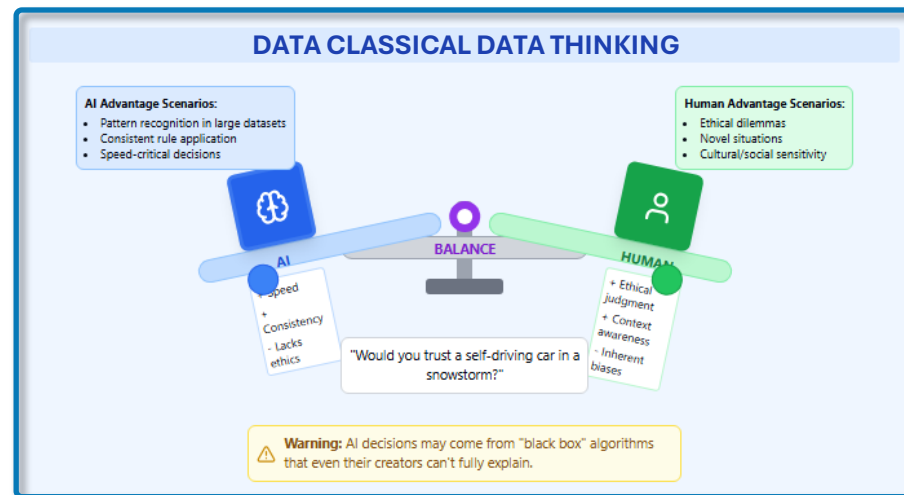
Teach Teams to Think in Probabilities

Explain confidence & uncertainty
Use scenario models, not yes/no answers

Ask: "How confident are we?"

AI makes decisions faster than humans—but does that mean it makes them better?

AI literacy must be taught alongside data literacy to ensure employees understand when to trust AI and when to challenge it



The Analogy

AI = Self-Driving Car

Great in clear weather, risky in a snowstorm

The Problem

All-In or All-Out Thinking

Overtrust = errors

Rejection = missed AI value

The Fix

Set Clear AI Boundaries

Define when AI vs. human judgment applies

Teach teams to detect bias

Adopt a "trust but verify" mindset

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BUILDING A DATA-LITERATE ORGANIZATION

Traditional Approach

- **Train** employees on tools and concepts
- **Certify** completion or skill levels
- **Assume** readiness for data use



The Shift We Need

Decision fluency means knowing how and when to use data to make better decisions

Three Core Principles

Contextual

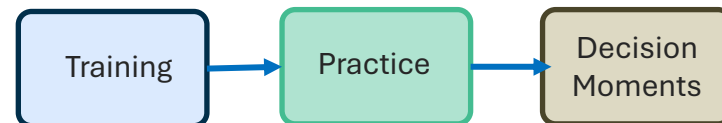
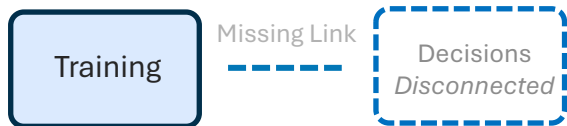
Must be tied to real business decisions, not generic scenarios

Cultural

It must live in meetings, conversations, and team behaviors

Continuous

Built through habits, not one-time events



The future of data literacy is contextual, cultural, and continuous

Common Pitfalls in Traditional Approaches

Focus on Training, Not Application

Certify people but don't change behavior

Access to Tools = Assumed Literacy

Give dashboards, but not interpretation skills

Overemphasis on UI and Features

Teach what buttons do, not what the data means

Culture by Slogan, Not Design

Say 'data-first' without changing meetings or processes

Ownership Without Collaboration

Assign one person to 'own' data instead of building team capability

What Successful Organizations Do Instead

Start with Real Decision Moments

Build skills around daily choices employees actually make

Integrate Data into Workflows

Insights should show up where the work happens—not in separate reports

Build Interpretation & Storytelling Skills

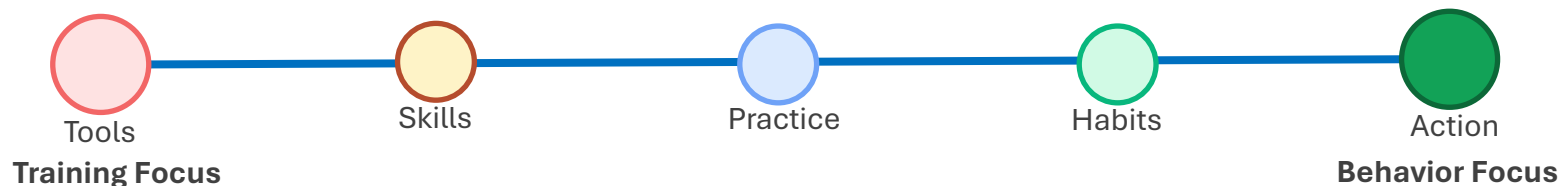
Fluency means understanding, not just access

Reinforce with Habits and Norms

Make data conversations a part of meetings, not an afterthought

Promote Shared Ownership

Enable teams to explore, question, and act on data together



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ADDITIONAL RESOURCES AND REFERENCES

Does Your Company Suffer From the Data Literacy Mirage?

Does Your Company Suffer From the Data Literacy Mirage?

Rate each statement from 1 (Strongly Disagree) to 5 (Strongly Agree) to assess if your organization suffers from the data literacy mirage.

0 of 14 questions answered

1. We have access to data—but people actually use it to make decisions.

Many organizations provide tools and dashboards, but employees still rely on instinct, habit, or informal opinions. This question helps uncover whether access is translating into action.

1

Strongly Disagree

2

Disagree

3

Neutral

4

Agree

5

Strongly Agree

2. Training has changed behavior—not just awareness.

It's easy to deliver training, but hard to ensure it sticks. This checks whether training has led to observable changes in how people think about, use, and communicate with data.

1

Strongly Disagree

2

Disagree

3

Neutral

4

Agree

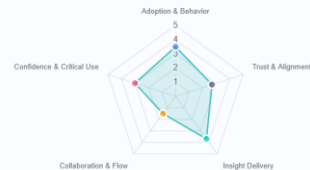
5

Strongly Agree

Your Score: 42/70

You Have the Tools—But Behavior Hasn't Followed

This is the illusion zone. Dashboards are available, and maybe training was delivered—but people aren't adopting data behaviors consistently. There's likely confusion, hesitation, and skepticism beneath the surface.



Adoption & Behavior

3.5

Trust & Alignment

2.7

Insight Delivery

3.7

Collaboration & Flow

1.5

Confidence & Critical Use

3.0

Next Steps:

- Choose one key team or process to redesign with data-informed behaviors in mind.
- Explore whether data is driving decisions or simply decorating presentations.
- Focus on building fluency, not just awareness, and connect data to outcomes that matter.

Webinar Title	Date	Action
<u>FREE Webinar - The Truth About Organizational Data Literacy - Why Organizations Struggle(1 hour)</u>	Mar 25, 2025	<u>Register Now</u>
<u>VIP Subscribers Only - From Numbers to Narrative - Crafting Data Stories That Resonate (1 hour)</u>	April 7, 2025	<u>Register Now</u>
<u>FREE Webinar - AI for Business Professionals: Navigating AI in Business with Confidence (1 hour)</u>	Apr 29, 2025	<u>Register Now</u>
<u>VIP Subscribers Only - Critical Thinking and Questioning with Data(1 hour)</u>	May 12, 2025	<u>Register Now</u>
<u>FREE Webinar - Blueprint for a Data-Literate Organization. Building Culture, Habits, and Fluency (1 hour)</u>	May 27, 2025	<u>Register Now</u>
<u>VIP Subscribers Only - Analytical Thinking – Turning Data Into Insightful Action(1 hour)</u>	May 12, 2025	<u>Register Now</u>

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- Easy-to-follow cheat sheets
- Perfect for business professionals

Hands-On Activities

- Interactive exercises
- Scenario-based learning
- Immediate application of concepts

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Need a Tailored Data Literacy Program for Your Team?

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Tailored Training for Your Goals

We design interactive sessions aligned with your industry, use cases, data maturity, and learning needs — whether you're just starting out or ready to go deeper



Built for Real Impact

Practical. Engaging. Actionable
Workshops, simulations, assessments, micro-learning & more
Delivered in-person, virtual, or via recorded learning modules



Popular Personas Served

- Data Consumers
- Leaders & Managers
- Technical Data Influencers
- Business Professionals
- Hybrid Roles



Training Topics Include

- Data-Informed Decision-Making
- Data Literacy Fundamentals
- Interpreting & Communicating Insights
- Mitigating Bias & Challenging Assumptions
- AI for Business Professionals
- Analytical & Critical Thinking with Data
- Storytelling & Visualization
- Strategic Thinking with Data
- Data Analytics
- Program Assessment and Evaluation with Data
- ...and more, customized to your use cases

Let's Design the Right Learning Path for You and Your Team

"What stood out was how personalized the content was. Kevin took time to understand our industry and designed training that actually fit our workflows."

"This was the first time our team really got what data literacy means. The way Kevin broke down complex ideas made it easy to grasp and apply."

"We've sat through a lot of training. This one stuck. People understand the concepts and they were applying them in conversations the very next day."

Visit turningdataintowisdom.com or contact us directly to get started

QUESTIONS

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