



# The Architecture of Truth

WHY DATA QUALITY IS 80% OF AI SUCCESS





# AI Doesn't **Fix** Chaos

It **amplifies** it. Without Information Architecture (IA), your AI is just a megaphone for dirty data.

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# | The Strategic 80/20 Rule

# 80%

Information Architecture

## The Real Heavy Lifting

Success in business automation relies heavily on the foundation. While the world focuses on the "magic" of AI, the results depend on data integrity.

$$\text{Success} = (0.8 \times \text{IA}) + (0.2 \times \text{Model})$$





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# The Foundation of Truth

Why Information Architecture is the non-negotiable anchor for AI reliability.



# | AI Amplifies Existing Chaos



## AI Doesn't Fix Chaos

If your information is disorganized, AI won't organize it—it will simply process the mess faster. Automation success relies on structure, not just speed.



## The Non-Negotiable Bridge

Information Architecture (IA) acts as the bridge between raw, digitized data and intelligent, AI-ready assets. Without IA, you have noise.



# The "Confidently Wrong" Paradox

## The Hallucination Risk

Minor discrepancies—like poor normalization or inconsistent mapping—lead to outputs that look perfect but are factually flawed.

- Poor metadata leads to context failure.
- Inconsistent date mapping creates timeline shifts.
- Normalization gaps cause redundant entities.

**Result:** AI that jeopardizes organizational trust.





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# The Search for Truth

An interactive diagnostic journey from  
passive listener to "Data Detector"



# Phase I: Reality Check

## The Case of the \$1M Invoice

In a real-world scenario, a 100% "certain" AI failed to process a critical \$1M invoice. The cause? A simple metadata mapping error.

### Should you trust AI with your largest invoice?

- AI mimics confidence, not correctness.
- Poor normalization leads to high-risk hallucinations.
- The cost of "dirty data" is no longer just inefficiency—it's liability.



Vendor Name  
**CYBERNETIC SYNERGIES, INC.**  
Address: 420 Digital Ave, Neo-Detroit,  
MI 48126

Invoice Number: 11235813  
Invoice Date: October 26, 2023  
Invoice Total Amount (to Pay): **\$1,000,000.00**

#### Bill To Information

Company Name: **NEXUS INDUSTRIES CORP.**  
Company Address: 101 Innovation Drive, Silicon Valley, CA 94025

#### Line Information

Item Description	Quantity	Unit Price	Total Price
Core Processors - Model 9000-X	5	\$120,000.00	\$600,000.00
Translucent Air Panels - Custom Gradient	150	\$1,500.00	\$225,000.00
Internal Red Neon Lighting Arrays	500	\$180.00	\$90,000.00
Precision-Engineered Chassis Joints	20	\$3,500.00	\$70,000.00
Synthesized Sensation Emulators	1	\$15,000.00	\$15,000.00
Eturnni Red Neon Chassis Joints	10	\$3,500.00	\$80,000.00
Tax \$1	10	\$120,000.00	\$600,000.00
Tax 0	20	\$1,500.00	\$225,000.00
Exs 9	10	\$180.00	\$70,000.00
		<b>Subtotal:</b>	<b>\$1,000,000.00</b>
		<b>Tax (0%):</b>	<b>\$0.00</b>
		<b>Total Amount to Pay:</b>	<b>\$1,000,000.00</b>

**Subtotal:** \$1,000,000.00  
**Tax (0%):** \$0.00  
**Total Amount to Pay:** \$1,000,000.00



## If AI sounds certain, would you trust it?

AI says it's "100% certain" about a \$1M invoice.  
What's your move?

- A** Approve it
- B** Spot-Check it
- C** Validate it
- D** Reject it

**100% CONFIDENT**

**Vendor:** XYZ Corp

**Date:** 12/04/2022

**Amount:** \$1,000,000



## Where do hallucinations really come from?

What triggers "confidently wrong" AI?

- A** Small Model
- B** Bad Prompts
- C** Messy Data & Mapping
- D** Too Much Automation

**Sure, I'm 100% Certain!**

**Event Co.**

**Date:** 13-04-2022

**Schedule:** Monday, 1 Million Tickets!



# | Phase II: The 80/20 Diagnostic

Moving from digitized data to intelligent, AI-ready assets is the only path to ROI.

Success relies on the 80/20 rule:



## Self-Assessment

A 3-question "IA Readiness" pulse check for your current assets.



## The IA Filter

Defining IA as the essential filter moving data from digitized to intelligent.



## Maturity Score

Immediate benchmarking of your organization against the 80/20 rule.



# | Phase III: The Workshop

*Turning AI risk into reliable Business Intelligence*



## Dirty Data

- Inconsistent data formats (MM-DD vs DD-MM, \$100.00 vs \$100.001)
- Missing metadata (no tags for context)
- Duplicate entries / Conflicting sources



## Normalized Data

- Standardized Schemas (ISO 8601)
- Enriched Metadata (IA Filter applied)
- Single Source of Truth (De-duplicated)

**Result:** Confident Hallucinations

**Result:** Reliable Business Intelligence



# Finding the Architectural Flaw

*What caused the LLM hallucination?*

## LLM Output (100% confident)

Vendor ABC renewed its agreement in March 2023 and should be invoiced under updated pricing terms.



## Hidden Data Reality (Root-Cause Clues)



Multiple contract versions



Mixed date formats  
(MM/DD vs DD/MM)



Amendment stored  
as untagged PDF



No defined system  
of record

A) AI Lacks Reasoning

B) Prompt Quality  
Issue

C) No system of record  
+ inconsistent  
metadata

D) Model needs fine-  
tuning

# | A Multi-Path Strategic Journey



## **AI & IM Integration**

Safely preparing information assets for generative and predictive AI applications.



## **Process Automation**

Identifying automation opportunities in information-intensive business workflows.



## **Security & Governance**

Balancing data accessibility with protection as AI reshapes information use.



# | The Tactical Takeaway

**Maturity Scorecard**



**100% CONFIDENT**

**Benchmark IA Readiness**

**Governance Roadmap**



**Balance Access & Protection**

**Modernized Practice**

-  Inconsistent Date Formats
-  Missing Metadata Tags
-  Duplicate Entries
-  No System of Record

***Establish a benchmark. Balance protection with access.  
Modernize for the future.***



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# THANK YOU!



**Nancy DiMaio**

**Director of Business Development, Canon U.S.A.**

Nancy operates at the intersection of high-level consulting and digital innovation. With an 18-year legacy at Canon, she transforms complex imaging ecosystems into scalable success stories.

Her career spans software development and systems management across banking, legal, and finance. She is a leading voice on navigating the shift to AI-driven data fabric.

[ndimaio@cusa.canon.com](mailto:ndimaio@cusa.canon.com)

[linkedin.com/in/nancy-dimaio-4319124](https://www.linkedin.com/in/nancy-dimaio-4319124)

