Brooke

Paralysed by Complexity

THE HIDDEN COST OF AUSTRALIA'S DATA DISORDER

The Complexity Crisis: When More Data Means Less Progress

In theory, more data should lead to better decisions. In practice, it often leads to confusion, delays, and missed opportunities — especially as organisations look to adopt Artificial Intelligence (AI) and advanced analytics.

It's a paradox many Australian organisations know too well — drowning in data, but thirsty for insights. Leaders find themselves stuck not because they lack information, but because critical insights are buried under layers of disconnected systems, duplicate reports, and mismatched definitions. The result? **Analysis paralysis.**

THE AVERAGE OFFICE EMPLOYEE SPENDS
1.8 hours every day
SEARCHING FOR THE DATA THEY NEED
that's 9 hours/week

Consider this: the average office-based employee **spends 1.8 hours every day — over 9 hours a week — just searching for the data they need**[1]. That's as if you hired a five-person team and one of them spends all week on a never-ending scavenger hunt instead of delivering value.

Despite global investment in data and analytics now topping **$500 billion annually,** decisions aren't getting faster[2]. Clearly, the problem isn't a lack of technology or data — it's the **unchecked complexity** surrounding it.

GLOBAL DATA & ANALYTICS INVESTMENT NOW TOPS OVER
$500B annually

Each business function often brings its own tools and terminology, creating silos that make it hard to maintain a trusted, unified data source. A simple business question like *"How are we tracking on X?"* – or a high-priority request from a Minister or Director-General (DG) in government – can trigger a week-long treasure hunt across incompatible platforms and spreadsheets. Because the data can't be fully trusted, results often need to be triple-checked — adding further delay, effort, and frustration.

This isn't just about inefficiency; it speaks directly to the uncertainty that paralyses decisions downstream. It's no surprise then that, in a recent Boston Consulting Group survey, more than half of global data leaders said growing data complexity is slowing their organisations down and driving up costs[2]. In fact, **71% of organisations believe stronger data governance would help them move faster and with greater confidence[4].**

71% of organisations

BELIEVE STRONGER DATA GOVERNANCE WOULD HELP THEM MOVE FASTER

One illustrative case: a major bank was found to be running over **5,000 different applications** across the enterprise — tangled up with ad-hoc spreadsheets and legacy systems. The environment was described as "extremely difficult to understand and even more difficult to safely change"[3]. This kind of fragmented IT landscape creates a fragile ecosystem where even minor updates can trigger unintended consequences. When every team and every project speak a different data language, it's no wonder even straightforward initiatives stall.

To move forward, organisations don't need more data — they need **more clarity.** Complexity in data is a silent tax on productivity, but it's a tax that can be reduced. Before investing in new platforms or tools, leaders must first confront the complexity crisis by simplifying and consolidating the data landscape.

Paralysed by the Unknown: Why Uncertainty Hurts

It's easy to assume that complexity is just about tangled systems and processes — but Brooke's research shows it's more nuanced than that. Backed by over a decade of practical experience and empirical research, Brooke has developed a proven approach to managing complexity that breaks down the drivers of complexity to two things; intricacy and uncertainty[5].

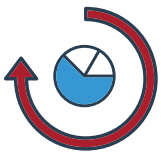
Intricacy refers to the number of "moving parts" — systems, reports, teams, dependencies — that need to work together. Uncertainty, on the other hand, stems from ambiguity: unclear ownership, shifting requirements, inconsistent definitions, and unpredictable change.

And it's often this uncertainty — not just the intricacy — that brings things to a halt. You can manage intricacy with good design. But uncertainty? That's what paralyses teams.

Uncertainty creeps in through seemingly small cracks — an outdated definition, a missing field, an "almost finished" report no one fully trusts. When teams don't know whether a dataset is accurate or up to date, they hesitate. Or worse, they charge ahead on shaky ground. It's like trying to build a house on quicksand — inevitably, things collapse.

The scale of the issue is massive. Studies estimate that between 60% and 73% of enterprise data is never analysed[6].

That unused data sits idle — either forgotten, duplicated, or hidden in systems no one monitors.



STUDIES ESTIMATE

60-73% of data

IS NEVER ANALYSED

Often, teams don't even know what data exists across the organisation. And when they do find it, it might be outdated, incomplete, or defined in ways that don't match the problem at hand. So instead of using it, they avoid it altogether. It's like having a full toolbox, but only ever using a hammer — because no one knows what the other tools do, or if they even work properly.

And even when teams can access data, that doesn't guarantee it's useful. Often, the same term means different things depending on where you look. One system's "customer type" might refer to account size; another might define it by product usage. A report on "active users" could be filtered by login frequency in one department and by billing activity in another. These inconsistencies might seem small, but they create big problems.

Teams spend hours reconciling reports, debating whose numbers are right, or rebuilding dashboards from scratch — all because the foundations aren't aligned. Uncertainty spreads. Time is wasted. Confidence erodes.

Brooke know the difference simplification can make. In one public sector organisation that relies heavily on a private sector partner to deliver outcomes, fragmented commercial arrangements and multiple overlapping contracts made even routine decision-making slow and resource-intensive. Brooke worked with them to consolidate these agreements into a single, collaborative enterprise contract. This reduced administrative effort by half — freeing up staff capacity to focus on more critical tasks and enabling a shift from reactive contract management to strategic planning. Just as importantly, it created a single, central view of contract data — making it easier for leaders to find the information they needed, trust its accuracy, and use it to make faster, more confident decisions[15].

This kind of clarity is the antidote to paralysis. Brooke's research found that clearly defining outcomes and establishing shared ownership models early in a project can significantly reduce uncertainty — and by extension, reduce complexity[5].

In the data world, that means:

- Defined and architected data governance frameworks
- Shared terminology
- Well-documented pipelines
- Known data owners and clear accountabilities
- A common understanding of what success looks like

When everyone shares the same definitions and knows where the data lives — and who owns it — ambiguity turns into alignment. And teams are free to act decisively.

AI Readiness Starts with Data Readiness

Without data, AI wouldn't exist. Whilst AI might feel like a natural step forward or a silver bullet solution for many organisations —it stumbles fast without a clear runway.

That runway? It's your **data foundation.** Not just the systems or spreadsheets, but the quality, consistency, security, and clarity of the data inside them.

Brooke's distinction between intricacy and uncertainty is critical here. AI can handle intricacy — in fact, it thrives on it. Sophisticated algorithms are designed to manage complexity at scale. But AI falls apart when faced with uncertainty. If data fields are inconsistently defined, ownership is unclear, or trust is low, then the smartest AI in the world won't help — it'll just make bad decisions faster[14].

Imagine trying to run a high-performance race car on low-quality fuel — that's what deploying AI on messy, ungoverned data is like. And yet that's what many organisations are doing. That's why **46% of global business leaders say poor data quality and lack of accessible data are major reasons their AI projects underperform[7].**

POOR DATA QUALITY AND ACCESSIBILITY CAUSES AI PROJECTS TO UNDERPERFORM ACCORDING TO

46% of business leaders

Even worse, **AI often surfaces problems you didn't know you had** — because it latches onto whatever patterns (or flaws) exist in your inputs. Bias, errors, missing values — they all get magnified. Without the right foundations, AI isn't insight. It's risk.

Only 53% of organisations have automated processes to prepare data for AI[7].

That means nearly half are still hand-cleaning their data. In 2025. It's like feeding rocket fuel through a garden hose. No wonder so many initiatives stall.

But there's a better way.

By fixing root causes, organisations don't just make their data "AI-ready." They make it **decision-ready.** The payoff? Faster analytics. Fewer errors. More trust. That's why 70% of AI adopters cite data-related challenges as their biggest barrier to success, and why only 20% have a data strategy mature enough to support AI at scale[11]. The message is clear: **if you want AI to deliver real value, you need more than a great algorithm. You need a clear, trusted foundation.**

only 20% of AI adopters

HAVE A DATA STRATEGY MATURE ENOUGH TO SUPPORT AI AT SCALE

The Cost of Inaction

By now, the picture is clear — data complexity and poor data quality are dragging organisations down. Yet some leaders might still wonder: *Can't we just live with it? Is fixing all this really worth it?*

It's a fair question: *Is fixing data really worth it?* After all, it can feel like a massive task. But the cost of inaction is far higher — and often hidden until it's too late.

Every day, hours are lost to searching for data or reconciling conflicting reports — time that could be spent improving services or supporting customers. Multiply that across an agency, and the cost becomes staggering. Poor data quality costs the average organisation **$12.9 million per year** in inefficiencies, rework, and missed opportunities[12]. It's like a slow leak — steadily draining time, trust, and talent.

POOR DATA QUALITY COSTS COMPANIES AN AVERAGE OF

$12.9M a year

And it's not just about money. Inaction creates fragility. When ownership is unclear and definitions are vague, even simple changes can spiral into chaos. Uncertainty spreads, and with it, the risk of serious failure.

Sometimes, failure makes headlines. One corrupted data feed cost Unity Software **$110 million in revenue and wiped $4 billion off its market value[12].** The culprit? Bad input from a major customer broke Unity's ad-targeting algorithm, leading to poor recommendations and financial fallout. Even the most advanced systems can be undone by unvalidated or poorly governed data.

In the UK, a government health agency **missed nearly 16,000 COVID-19 cases** when an outdated Excel system hit its row limit and quietly dropped the excess13. Tens of thousands of people may have missed contact tracing — a stark example of how brittle systems and unchecked processes can have real-world consequences.

These aren't just IT slip-ups — they're high-stakes failures of trust, safety, and accountability.

And the public sector isn't immune. When data definitions differ between departments — or no one is sure which version is correct — policy decisions stall. Support is delayed. Accountability falters. These aren't "what if" risks — they're real-world consequences.

The longer organisations delay fixing these issues, the higher the risk. Every day you operate with data you can't fully trust, you're gambling with public confidence, operational efficiency, and reputation. They say good data governance isn't cheap, but the alternative will cost you a lot more.

The bottom line? Complexity and inaction are costing more than you think. And the cost keeps growing.

From Siloes to Systems: How Connected Data Enables Confident Decisions

Even when leaders recognise the data mess, fixing it can feel overwhelming. Where do you start untangling years of silos, conflicting definitions, and legacy processes?

This isn't just about plugging systems together. It's about creating the **infrastructure and flows** that allow trusted, real-time data to move to where it's needed — whether that's powering a dashboard, training an AI model, or automating a business process.

Modern solutions like **integration platforms, data hubs, and AI tools** are changing how this happens. With the right foundation, organisations can eliminate bottlenecks, align on definitions, and unlock data for smarter decision-making. The Boomi Platform, for example, delivers end-to-end integration, data quality, and master data capabilities, helping organisations create a unified, connected data environment. In
one case, Moderna used Boomi to rapidly integrate critical systems during its COVID-19 vaccine rollout, reducing onboarding time for new partners from months to days. This agility enabled confident, data-driven decision-making at global scale during a time of intense demand.

Think of it as building **data highways** between isolated systems — replacing error-prone detours with clean, automated pathways.

With the right approach, integration turns a tangled web into a connected network:

ELIMINATE SILOS

Connect systems under a common governance framework so everyone is working from the same information with clear oversight.

IMPROVE QUALITY

Validate, clean, and synchronise data at every connection point.

AUTOMATE WORKFLOWS

Reduce manual data wrangling and duplication.

ENFORCE CONSISTENCY

Create unified data definitions across the enterprise.

Done right, integration is more than a technical fix — it's an enabler of speed and trust. Yet most large organisations **use over 1,000 apps, and only 29% of them are integrated[10]**. That leaves 70% running in isolation — with data bottlenecks slowing innovation and decision-making. No wonder **80% of IT leaders say integration challenges are holding back digital transformation[10].**

INTEGRATION CHALLENGES ARE HOLDING BACK TRANSFORMATION FOR

80% of IT leaders

We've seen leaders describe integration as the moment "everything clicked" — when finance, HR, and service data could finally be seen together. Suddenly, dashboards worked. Insights were timely. Confidence returned.

Of course, integration alone isn't a silver bullet. It must be paired with good governance, shared definitions, and trusted processes. But as part of a bigger strategy, it's the fastest way to shrink complexity and unlock momentum.

What's Possible: From Paralysis to Progress

If there's one message that shines through, it's this: **complexity may be inevitable — but it is manageable.** Data doesn't have to be a permanent roadblock. With the right focus and support, public and private sector leaders can move from paralysis to meaningful progress.

It starts with understanding your environment. Many organisations operate in a maze of systems, reports, and definitions — but haven't mapped what's really going on. Even just visualising your current state can unlock quick wins and reveal where the most friction lives.

Brooke has supported many organisations on this path by helping simplify what's already in place, align teams around a shared definition of success, and build a roadmap that reflects the outcomes that matter most. Every recommendation is grounded in what the organisation *actually needs* — not what's easiest to sell.

Progress starts when you stop managing around the complexity — and start confronting it with clarity and intent.

You don't need all the answers to move forward — just the right partners to help you clear the path.

Boomi Spotlight: Connecting the Dots at Speed

Boomi simplifies complexity by centralizing and synchronizing trusted data across applications, making it easier for organisations to deliver accurate, real-time insights. By creating a single source of truth, it helps reduce data prep time by up to 70%, accelerating AI and analytics initiatives at scale. This empowers businesses to make smarter decisions faster and drive innovation with confidence.

Brooke Spotlight: Simplifying Complexity for Progress

At Brooke, we've spent over a decade helping organisations navigate the complexities of their data environments. We understand that the journey to simplification isn't about deploying the latest technology — it's about making strategic changes that build clarity, trust, and alignment across teams.

Through our proven approach, we help you assess your current data landscape, streamline systems, and implement solutions that deliver measurable improvements in efficiency and decision-making. Whether it's through consolidating data sources, aligning on definitions, or ensuring governance, we're here to help guide your organisation through the complexities of modern data management.

Next Steps: Ready to Tackle Data Complexity?

Data complexity doesn't have to hold your organisation back. With the right foundation, you can transform your data into a strategic asset that drives smarter, faster decisions. Start by understanding your data's readiness to support AI and digital transformation.

Book a Data Readiness Assessment with Brooke.

Our team of experts will help you assess your current data environment, identify gaps, and create a roadmap for ensuring your data is truly ready for AI, analytics, and beyond. Let us help you clear the path for more confident decision-making and faster progress.

Call Sophie to book your assessment

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References

1. McKinsey Global Institute. *The Social Economy: Unlocking Value and Productivity Through Social Technologies.* 2012. https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-social-economy
2. Boston Consulting Group. *Why Data-Driven Companies Still Struggle with Decision Speed.* 2023. https://www.bcg.com/publications/2023/why-data-driven-companies-struggle-with-decision-speed
3. Oliver Wyman. *The Complexity Crisis: Breaking Down the Hidden Barriers in Large IT Environments.* 2021. https://www.oliverwyman.com/our-expertise/insights/2021/sep/the-complexity-crisis.html
4. DATAVERSITY. *Data Governance Survey Results.* 2023. https://www.dataversity.net/2023-data-governance-survey-results/
5. Brooke Institute. *Simplifying Success: Managing Complexity in Contracts.* 2021.
6. HGS. *CX Technology for Supporting the UK's Most Vulnerable Customers.* 2023. https://hgs.cx/blog/cx-technology-for-supporting-the-uks-most-vulnerable-customers
7. Salesforce. *The Next Frontier in Enterprise AI: Shaping Public Policies for Trusted AI Agents.* 2024. https://www.salesforce.com/content/dam/web/en_us/www/documents/white-papers/the-next-frontier-in-enterprise-ai.pdf
8. Australian Government. *Digital Government Strategy*. https://www.apsc.gov.au/digital-government-strategy
9. Deloitte. *AI Data Readiness (AIDR): Building the Foundation for Scalable AI Adoption.* July 2024. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/Advisory/us-advisory-ai-data-readiness.pdf
10. MuleSoft (a Salesforce Company). *2023 Connectivity Benchmark Report.* https://www.mulesoft.com/resources/api/2023-connectivity-benchmark-report
11. Trinetix. *AI-Ready Data: Why It Matters and How to Get There.* 2024. https://www.trinetix.com/insights/ai-ready-data
12. Dataversity. *Understanding the Impact of Bad Data.* 2024. https://www.dataversity.net/understanding-the-impact-of-bad-data/
13. The Guardian. *England Covid Cases Error Means 50,000 Contacts May Not Have Been Traced.* October 2020. https://www.theguardian.com/world/2020/oct/04/england-covid-cases-error-50000-contacts
14. CIO. *Data's Dark Secret: Why Poor Quality Cripples AI and Growth*. 2025. https://www.cio.com/article/3956176/datas-dark-secret-why-poor-quality-cripples-ai-and-growth.html
15. Brooke Institute. *Building a Collaborative Enterprise.* 2021. https://brooke.global/building-a-collaborative-enterprise/

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