

# State of Data & Al

Frontrunners kickstart AI-first transformations for competitive advantage

2024



# Frontrunners kickstart Al-first transformations for competitive advantage

The power of AI will transform organisations, business models and our daily lives to a greater extent over the next decade than the internet has over the past 20 years.

As a leading Al consultancy, Mantel Group is on the frontlines of this shifting landscape. Our analysis of over 20 large Australian organisations engaged in various Al projects finds a small group of Al-aware leaders who have escaped proof-of-concept purgatory and are going all in to achieve higher business value from its transformative potential.

Here are 3 of the standout trends emerging from our latest research into organisations' efforts to drive value from their data and AI investments:

- Identifying high ROI problems to solve with AI is no longer an issue. But, roughly half of all AI projects lack alignment with strategic business outcomes.
- Nearly a third (27%) have **changed their business model for AI**, suggesting that while true AI-driven business transformation still has a long way to go, this cohort has a healthy head start.
- 73% of organisations have implemented company-wide training in AI and machine learning. However, only those **focused on the right skills** are achieving the desired outcomes.

We see 2024 as a transformative year for the data and AI landscape, and we want to help you be a part of it.



**Emma Bromet** Partner, Data & Al



Thomas Maas Head of Data & Al Strategy

#### This report contains:

Strategic opportunities and where our respondents are investing

Foundational challenges and how we resolve them

Where AI/ML can help you find high value, now and in the future



#### **Catherine Jordan**

Principal Consultant, Data & Al

# Strategic Opportunities





## Al key benefits and common barriers

### Higher productivity, improved efficiency, better decisions

Enhanced customer service by leveraging predictive analytics

**76%** of organisations see increased productivity as their largest value opportunity **62%** of organisations see the greatest value add in customer service functions

**Strategic Opportunities** 

Strong data and Al leadership required to gain competitive edge

## **62%**

of organisations see competing priorities as the main barrier to progress

## Al can boost productivity, customer experience and decision-making

Fig 1. The greatest potential for data, analytics and AI to enable businesses over the next 3 years

Improved productivity and efficiency 76% Improved customer experience 71% Better and faster strategic decision making 71% Reduced costs 38% Increased revenue 33% Faster time to market 24% Better security and risk management 24% Improved sustainability 14% Other 9%

- management.

Business leaders identified 3 areas in which data and Al investments offer the highest strategic value:

- **Productivity and efficiency improvements (76%) Better customer experiences (71%)**
- Faster and better strategic decision-making (71%)

These results indicate data and AI leaders have their medium-term focus on implementing everyday AI within internal operations, while taking small steps in external customer-facing AI implementation. Game-changing Al-enhanced products and services are likely considered a longer-term Al opportunity.

Further down the priority stack, they are also seeing the potential of AI and data investments to bolster:

- Security and risk management (24%)
- Time to market (24%)
- Sustainability (14%)

We anticipate increased revenue and faster time to market through AI-enhanced products and services to rank higher. Lastly, we anticipate an uptick in improved security and risk

## **Customer service extracts the** most value from Al investments

Fig 2. Business functions in which data, analytics and AI add the most value to organisations

Customer Service Operations
62%
Strategy and Finance
43%
Product Development
38%
Marketing and Sales
38%
Risk and Compliance
29%
People & Workforce Management
24%
Manufacturing and Supply Chain
19%
IT and other shared services
14%
Other
10%

Data and AI leaders anticipate that the maximum value to be realised lies within front-of-office solutions, situated close to where customer value is generated. For example, leveraging Natural Language Processing (NLP) to accurately identify complaints from consumers and small businesses in an automated manner.

#### Our research identified Customer Service (62%), Strategy and Finance (43%), Product Development (38%), and Marketing and Sales (38%) as the functions reaping the most rewards from data, analytics and AI investments.

This serves a secondary function in the financial services industry where complaint identification is a regulatory requirement for internal dispute resolution (RG-271).

In contrast, data and AI leaders tend to see less value in directing data and AI investment to areas with higher levels of technical data literacy in their organisation, such as within IT and supply chain.

# Organisations use AI to predict consumer behaviour and develop interventions

Fig 3. The highest value use cases for data, analytics and AI in organisations

Predictive service and intervention 57% Workplace productivity enhancement 43% Customer experience segmentation and personalisation 43% Data and Al-driven product and feature enhancements 43% Customer experience automation 33% Risk analytics and prevention 29% New product development and innovation 24% Pricing and margin optimisation 24% Fraud analytics and prevention 10%

Organisations see the most value in using data and Al investments to **predict consumer behavior and develop interventions (57%)**. In industries where competition is particularly intense or likely to intensify, Al is seen as a key tool to reduce customer churn by integrating predictive customer lifetime value (CLV) with automated interventions (actions and offers) to increase retention.

However, other high value use cases, such as **customer experience segmentation and personalisation (43%)**, **product and feature enhancement (43%)**, and **workplace productivity enhancement (43%)** would appear to align more closely with the goal of improving overall customer experiences by leveraging data and Al.

## **Barriers to successful Al and data** analytics execution

Fig 4. Biggest challenges currently in realising data, analytics and AI ambitions

Competing priorities in the organisation
62%
Lack of data literacy in the organisation
48%
Lack of budget or funding to establish robust data foundations
38%
Lack of strong data governance and management 38%
Legacy systems and tech debt holding back advancements 29%
Lack of finding and retaining talent 19%
Lack of adoption of data, analytics and AI products by the organisation 19%
Lack of a well-defined data strategy and operating model 14%
Lack of business case / identifying high value initiatives 14%
Lack of delivery / productionisation of data, analytics and AI products 10%
Lack of high-value data assets and/or low data quality 10%
Compliance and regulation holding back advancements 0%

When it comes to barriers to AI and data analytics implementation, our findings highlight the ongoing struggle to convey data as an enterprise-wide strategic asset.

When tackling key challenges within their organisations, data leaders see competing priorities (62%), a lack of data literacy (48%), absence of budget or funding to establish robust foundations, and lack of strong data governance and management (38%) as areas where the most prominent difficulties exist.

These challenges extend beyond the immediate influence of data leaders within their organisations, prompting the question:

In the current economic climate, expediting value realisation by aligning the vision of the C-suite with the actual capabilities of the organisation is key. This means resolving competing priorities, budget discussions, and establishing realistic paths to value realisation.

**Strategic Opportunities** 

#### Do non-data and Al leaders truly comprehend the transformative potential of data and AI?

# Invest in data capability to drive competitive AI edge

Fig 5. Areas of data, analytics and AI organisations need to invest in over the next 1-2 years

Data Engineering, Platforms and Tools

67% Data Governance and Management 67% Machine Learning and Artificial Intelligence 57% Strategy and Transformation 29% Business Intelligence and Reporting 14% Enablement and Democratisation

**5%** 

Data platforms and data management (67%), as opposed to AI/ML (57%), are identified as the primary areas of investment by two-thirds of data leaders surveyed.

Is this self-interest, due to centralisation and management by data teams? Or are data leaders simply well positioned to grasp the fundamental capabilities for capturing the largest value opportunities in data and AI?

The answer maybe a bit of both. As the initial wave of AI enthusiasm gives way to the reality of mostly incremental steps in driving business outcomes, data leaders are **focusing their effort on data enablement**, to establish a genuine competitive advantage. Ultimately, gaining an edge is easier with superior first party data than attempting to surpass off-the-shelf solutions from OpenAI, Google, AWS, and Microsoft with customised AI/ML models.

**Strategic Opportunities** 

## **Our View on Strategic Opportunities**

AI/ML potential is cementing the business case for data

#### Shift from strategy to implementation

One year on from our last market overview, leaders have defined high-value use cases for AI and machine learning; they are now focused on optimising data models and teams to extract that value. This is a big shift from 12 months ago when use case prioritisation, gaps in data foundations, and talent shortages were still a struggle.

#### Alignment with business outcomes remains a challenge

We are still seeing some misalignment between what data and analytics teams are delivering and why, and business outcomes. Executives are eager to harness the power of LLMs, but often underestimate the importance of fit-for-purpose infrastructure (i.e. ML Ops) and data integrity. Competing priorities and a lack of data literacy are now the biggest challenges data leaders face, while having a well-defined data strategy is of much lower priority. Budget constraints are playing a role here, as well as data literacy now being considered a company-wide challenge to solve, in order to support and drive innovation.

#### From experimentation to transformation

In the past, many businesses have implemented AI solutions in an experimental way; initially through Proof of Concepts (POCs) and then applying AI to optimise or automate an existing business process.

The opportunity ahead is to re-imagine organisations with AI at the centre. Instead of applying AI to solve specific parts of a process, the norm should shift towards transforming operating models and businesses processes with AI as the driving force. This will require organisation-wide buy-in and trust in AI. However, those organisations that embrace this approach will undoubtedly gain a competitive advantage.

"There isn't a single core business process that can't be enhanced or re-imagined by Al out there."



**Emma Bromet** Mantel Group Partner, Data & Al



## Government improving the citizen experience with machine learning

Think big, start small. Building the case for transformation.



Department of Transport and Planning

## Getting the Foundations Right for AI Enablement in Transportation

The Department of Transport and Planning Victoria (DTP) embarked on a coordinated effort to combine all their data on the transport network. This foundation improved analytical and decision making capabilities to achieve safe, sustainable and integrated transport for Victorians.

DTP's integrated Transport Data Platform enables countless machine learning use cases, from predicting how busy a train will be or the impact of road disruptions on traffic flow. To start their machine learning journey, DTP sought Mantel Group's support with ideation and prioritisation workshops to develop a well-defined and agreed roadmap consisting of actionable use cases.

By assessing both the feasibility and customer impact of use cases the data team was no longer hindered by competing priorities or barriers moving from proof-of-concept (PoC) to production.

Furthermore, in order to educate the wider department on the power of machine learning, and develop the roadmap for technology foundations, DTP worked with Mantel Group to build a prediction model that showcased significant improvements in prediction accuracy. These tangible outcomes helped build a compelling case for further investment in machine learning.

# Foundational Challenges





## **Key challenges**

### Demonstrating value to the business

### Uplifting data maturity across the organisation

**71%** do not measure value during or post implementation

**86%** indicate data quality of core datasets acceptable or worse

**Foundational Challenges** 

### Zero tolerance on data privacy

## 33%

#### have no specific security standards for sensitive data



## **Traditional processes tend to result** in a focus on technical brilliance over solving customer problems

Fig 7. The typical time horizon when

evaluating data and analytics ROI

Fig 6. How initiatives are prioritised in organisations



Organisations choose to prioritise data and AI initiatives in various ways, usually with strategy and planning, and established organisational practices such as councils. However, a noteworthy 37% of organisations operate with an ROI horizon of less than one year, creating limitations on substantial foundational capability investments. Consequently, this intensifies competition for Operational Expenditure (OpEx) budgets.

ig 8. How data and analytics ROI is measured in organisations
Value is described in a business case up-front, but not measured during or post-delivery
52%
Before, during and after the delivery process
Data, analytics and AI value is not measured at all
Value is measured as part of the delivery process
Before and during the delivery process
Services are not profit driven and ROI is not the focus
Before and after the delivery process 5%

A focus on traditional rhythms and methods often leads to determination of value based on ROI presented in initial business cases, with monitoring during or after delivery neglected. Such a focus on ROI, coupled with potential deficiencies in data literacy or value awareness amongst decision-makers, often directs focus on technical delivery rather than outcome-oriented results. This approach poses a considerable risk of not adequately addressing underlying customer problems.

## **Data ownership not optimised across** all data assets

Leads to missed insights, security risks and storage waste

#### Fig 9. The function of data architecture within organisations



Fig 10. How data accountability and ownership

is managed across whole organisations

Three out of four data and AI leaders noted that their organisation's data architecture function is not well-established, lacks full staffing and a mandate for enterprise-wide change. This absence of oversight is akin to steering a ship without a captain, indicating that data has not yet attained the status of a fully-recognised strategic function.

#### Fig 11. Existing roles for data management activities

19%

5%

While 65% of survey respondents have established clear ownership of core datasets only 33% are elevating ownership and responsibility above daily operational levels.

This lack of ownership for non-core data - which often makes up the bulk of data - can create challenges for organisations, namely missed opportunities for better insights and informed decision making, increased security risks, and increased storage expense of low value data.

**Foundational Challenges** 



33%

## Data quality is generally okay, but hard to improve

Fig 12. How data quality within organisations is described



Unsurprisingly, data quality as a prominent challenge. Only 14% of organisations surveyed establish, monitor and maintain quality metrics for the majority of their data, with some automated remedial processes. 52% find the quality of core data acceptable but requires significant maintenance, while 34% face larger concerns around data quality.



Further exploration of this topic reveals that **38% of organisations do not regularly** provide quality measures, if ever. No organisations incorporate enterprise-wide data quality management as BAU at the highest levels, while recording of data management issues varies from none to active management across all datasets. Data observability appears on the agenda for most organisations, though effective implementation of data quality uplift is not yet widely adopted.

For more on this topic, read our article on **Data Quality Uplift**.

#### Fig 13. How data quality is measured

24%

mitigation

24%

24%

24%

Fig 14. The practice of data management issues and/or risks recorded in auditable logs and/or risk registers



## Data security and privacy are on the radar

#### But not fully under control

#### Fig 15. How data quality within organisations is described



In recent years, data security and privacy has been on executive agendas at nearly every organisation, fueled by high-profile data breaches and incidents that have caused significant damage to many Australians, creating national and global headlines along the way.

This is reflected in how organisations currently manage the security of sensitive data. All organisations have security standards in place, with the majority of them (67%) operating at defined, embedded or optimised

#### Fig 16. Processes in place to proactively monitor and identify risks to data security in organisations



levels. 81% proactively monitor and identify risks to data security, while only 19% operate in a reactive, issue-based manner.

While this suggests that most organisations have reasonably well-controlled data security and privacy, recent history shows how seriously data security and privacy need to be taken. Continuous improvement should be the gold standard.

#### **Fighting Adversarial AI**

Securing machine learning workflows against Adversarial AI is more than a necessity, it's an obligation to safeguard our businesses and customers. Adversarial AI refers to a set of techniques used to deceive AI systems. By exploiting vulnerabilities in Al models, bad actors can trick these systems into making erroneous decisions that favour the attacker's motives. These techniques have become alarmingly prevalent in recent times. In 2022 alone, 30% of all AI cybersecurity incidents included adversarial techniques.

To create robust defences against Adversarial Al we must weave security into the fabric of our AI systems. Four key elements to consider are: bias identification, malicious input identification, ML forensic capabilities, sensitive data protection. Read our full blog to learn more about how we're fighting Adversarial Al.

## **Our View on Foundational Challenges**

Treating data quality at its origins while uplifting data capability

#### What do you think are the biggest challenges?

With the newest kids on the block, AI and ML, stealing the limelight, data and analytics teams have to work smart on slim budgets to survive. Amid short investment horizons and shrinking budgets, data teams often struggle to find the right balance between running the business and changing the business.

Additionally, data teams disconnect themselves usually too far from the rest of the organisation. Priding themselves on technical brilliance over solving customer problems, all the way from data graduates to leaders. The primary role of data leaders should be to focus on culture, literacy and adoption in the rest of the organisation and less on debating which modern cloud platform has the absolute lowest storage and compute.

It is through data governance and a true data-driven culture across the entire organisation - from software engineers creating data all the way to customer-facing staff making data-driven decisions on a daily basis that good data quality and management becomes a strategic asset.

#### What do you think will happen in 2024?

We are strong advocates of "shifting left" when it comes to data management - focusing on prevention of data issues, rather than getting bogged down in remediation. Aim for data quality control as close to the source as feasible. Be consistent and persistent with enforcement. Be pragmatic and collaborative. Aim to reduce data duplication and movement to a minimum. Start uplifting data quality for new, high value applications, especially in the ML/AI space.

How to uplift data literacy and how to effectively drive change is an underestimated component of uplifting data maturity within organisations. Data literacy and change management aren not programs or classroom exercises to tick off in the delivery plan. They are a continuous process of improving adoption of data as a capability within the organisation. Mantel Group uses ADKAR as a change management model which focuses on the individuals to drive awareness, desire, knowledge, ability and reinforcement, day in and day out.





## **Resolving data quality challenges - Healthcare and Financial Services**

Addressing data quality issues at the source while empowering the business with well-governed data autonomy

#### **Integrated Data Governance Powering Business-Driven Risk Management**

A global financial services provider needed to close a gap in embedded governance and control functionality.

Its team recognised that data quality and accuracy is critical to business agility for automation, analytics and reporting of operationally important workloads. It also recognised that the right level of assurance and controls were needed to permit workloads to be built.

Mantel Group's solution team leveraged Dataiku for operationally important workloads to satisfy the need for autonomous, governed access to trade data. Our low to no-code solution empowered the client's stakeholders to leverage advanced analytics platforms beyond traditional analytics, while reducing tech dependency, and helping to ensure data is accurate, complete, timely and accessible.

#### **Revolutionising Clinical Trials: A Cloud-Native Approach**

Our healthcare client had a highly manual clinical quality review service process that required team members to use disparate systems with multiple handoff points to different users/roles. They wanted to simplify the system and improve data accuracy, as most of the data was manually transported between individuals and clinics via Excel / CSV files and other disparate systems.

The solution condensed 10+ systems into one, simplifying the clinical quality review service process. The automation led to time and cost savings across each project, enabling team members to focus on higher value tasks.

The automated process has eliminated nearly all accidental data errors and provides better auditing which increases trust and confidence in data extracts. Read our full case study to learn more.



# The path forward for AI/ML





## **Key insights**

### **Embracing AI as the true** game changer for data

#### Don't overlook traditional ML/Al in the age of **Generative Al**

50% have AI/ML activities well aligned with business priorities

84% are using traditional ML in production

The Path Forward for AI/ML

### **True Al-driven business** transformation still has a long way to go

## 27% of organisations have changed their operating model for Al



## **Embracing AI as a true game changer**

Lacking strong strategic alignment, focus on efficiency rather than growth, and mostly early stage adoption

Fig 17. How well AI/ML activities align to organisation's strategic business priorities



Fig 18. Where organisations are in their AI/ML adoption journeys



Note: %s may not sum to 100 due to label rounding



Roughly half of our respondents showed strong alignment of their AI/ML initiatives and strategic business objectives, indicating a lack of universal alignment. This challenges the media's portrayal of widespread AI/ML strategic adoption, suggesting organisations are translating awareness into action at varying paces.

Of surveyed organisations, 86% are in pilot or have limited AI/ML adoption, while only 10% have achieved wide-scale adoption. None have integrated AI/ML as a critical component of their business operations, revealing a gap between expectation and reality, despite the technology's potential.

Finally, while 60% of surveyed organisations foresee AI/ML contributing to growth, the other 40% see it predominantly driving operational efficiency. This duality raises the question of whether the prevailing economic climate has influenced a divergence in priorities, or if there are other factors at play.

The Path Forward for AI/ML

#### Fig 19. Predominantly drivers of investment in AI/ML

## Machine Learning is still leading the way in IT and Marketing

### Anticipating LLMs and Transformer models will quickly catch up though

Fig 20. Areas where organisations are currently utilising AI/ML

Marketing and Sales	5	
	32%	
ІТ		
	32%	
Product Developme	nt	
	26%	
Customer Service O	perations	
	26%	
Strategy and Financ	e	
	21%	
People and Workfor	ce Management	
16%		
Supply Change Man	agement and Manufacturing	
16%		
Risk and Compliance	e	
11%		
Other		
10%		
Operations		
5%		
%		40

## Fig 21. Cognitive technologies currently used in production

Machine Learning	
	84%
Natural Language Processing	
47%	
Robotic Process Automation	
42%	
Computer Vision	
32%	
Large Language Models	
26%	
Speech Recognition	
16%	
Transformer Models	
11%	
Other	
5%	
Deep Learning (such as GANs)	
0%	
Reinforcement Learning	
0%	
%	100

While **32% of organisations utilise AI in Marketing and Sales to unlock value**, its application in Product Development stands at 26%, and in Customer Service Operations where it is utilised by 26% of organisations.

In contrast to responses elsewhere in our survey, **IT emerges as a standout user of AI/ML (32%)**. This aligns with expectations, given the inherently tech-savvy nature of this organisational domain, making it an early adopter of new and emerging technologies. Numerous use cases illustrate how AI/ML enhance value and efficiency within IT functions, encompassing areas such as code generation, reviewing, testing and documentation, as well as anomaly monitoring and alerting.

Despite the prevalent coverage of Generative AI in media, our findings indicate that at the time of surveying, **more organisations are using computer vision rather than large language models (LLMs) in production**. Cognitive technologies that are most used in production are generally wellestablished, such as Machine Learning, Natural Language Processing, and Robotic Process Automation.

Looking ahead to 2024 and beyond, we expect a notable increase in the deployment of production-grade LLMs and Transformer models, also coinciding with the emergence of Large Vision Models.

## True Al transformation still has a long way to go

Barriers across people, process and technology and limited focus on AI/ML democratisation across the organisation

#### Fig 22. Main barriers organisations face to gaining traction and realising value with Al



Fig 23. How organisations are working towards the democratisation of AI/ML



When it comes to successful adoption and realisation of benefits from AI/ML, our survey respondents called out a diverse range of obstacles. A large cohort (38%) attribute these obstacles to foundational issues, specifically concerns around data quality and inadequate infrastructure. Another 33% encountered hurdles related to technical integrations and a limited comprehension of AI technologies and their advantages. 27% identified the absence of a well-defined AI/ML vision and strategy, aligning with responses emphasising the importance of aligning AI/ML initiatives with overarching strategic business priorities.

In terms of advancing the deployment of AI/ML to non-experts, the **main direction appears to be towards non-democratisation of AI/ML**, with nearly half of our respondents moving in this manner. 29% mention introducing low-to-no code AI platforms, 24% are introducing AI-powered analytics platforms, and only 14% are using AutoML. We wouldn't be surprised to see this shift in the next 12 months.

These results suggest that the majority of **data leaders recognise the prevailing challenges and are directing their attention towards aspects within their control.** Nonetheless, it highlights the existence of a divide between data leaders executives - one that needs bridging. Addressing this gap will help organisations effectively structure themselves to welcome the looming business transformations driven by AI, much in the same way as in the realms of digital and cloud technologies over the past decades.

#### The Path Forward for AI/ML

## 0 /ML



## **AI/ML** maturity programs starting up

Limited focus on managing ethical considerations yet

On the topic of AI/ML maturity within organisations, a significant **73% of respondents** have implemented education and training initiatives for the wider organisation, mostly focusing on creating awareness around the adoption of AI/ML. Notably, 27% of these organisations have also established new departments and roles dedicated to steering the application of AI/ML. The remaining 27% have yet to introduce any training or awareness programs related to AI/ML.

Diving deeper into organisations that have implemented education and training initiatives, many of these initiatives focus on hands-on, practical instructions for utilising AI/ML tools and technology. While there is also some emphasis on enhancing employees' comprehension of how AI/ML functions, and its capabilities and potential risks, this aspect is less pronounced. Consequently, many non-experts are left with uncertainties regarding the future impact of AI/ML on their roles, and whether AI/ML will entirely replace their jobs, or merely augment their responsibilities by amplifying productivity in low-value, highly repetitive tasks.

Regarding the adverse effects of AI/ML, **42% of respondents are not currently** addressing ethical concerns in AI/ML models. On the other hand, an equal number are employing auditing, bias mitigation algorithms, or model/data assessments approaches that we, as AI/ML experts, would strongly recommend. The remaining 16% of respondents outline organisation-wide guidelines, committee approvals, or limiting non-expert access. While not inherently flawed practices, these do pose a risk of inadequate risk management at a fundamental level. The principle of "Trust, but verify" remains as relevant as ever.

#### Fig 24. Education and training programs in or intended to be in place for the broader business adoption of AI/ML



Restricting us feedback on

5%

0%

	42%			
model testing and auditing				
21%				
training data auditing				
16%				
10%				
itigation algorithms and other ethical guidelines				
e case and access to tools to thos accuracy	e who are capable of discerning	and providing		

50%

## **Our View on the Path Forward for AI/ML**

### AI/ML shifts from intriguing to strategic agenda

#### How does last year compare?

Last year, AI/ML was socially perceived as an 'intriguing' addition to boardroom discussions, and an area for organisations to experiment with. With the release of ChatGPT and a surge of other Generative AI tools and models, AI/ML should now be acknowledged as a palpable and essential component of strategic agenda.

#### What has been hampering AI/ML to date?

Right now numerous businesses are experimenting with multiple Proof of Concepts (PoCs) simultaneously, seemingly advancing in maturity. However, it's crucial to question if this approach truly adds value. What hinders these companies from moving beyond the PoC stage and genuinely realizing value?

#### What's needed to truly leverage the benefits of AI/ML for your business?

More often than not, PoC purgatory is due to a lack of executive understanding, appropriate foundational elements, and appropriate MLOps technology.

**People:** Leaders need to change their approach from traditional tech projects, to embrace dynamic learning, adaptability, and responsible AI practices. Recognising setbacks (fail fast), adapting quickly, and fostering open dialogue between strategic needs and AI/ML output are crucial for ongoing success. It asks for strong AI product leadership.

**Processes:** Realising value from AI/ML begins by establishing strong foundations in data governance, management, and quality. When these data basics are improved, it expands the possibilities for impactful use cases that truly benefit business outcomes and improve customer experience.

**Technology:** MLOps, an extension of DevOps for machine learning, makes it easy to deploy, monitor and manage models seamlessly. Customised MLOps technology and frameworks ensure PoCs transition to production, enhancing the scale, security and speed of value realisation through quality iterations.

Read more about our solutions to value realisation from AI/ML in: The power of Gen Al is real.



To truly realise value from AI/ML organisations must recognise:



## Leaders are forging ahead with AI/ML at scale

#### **Enabling sustainable ML Scale**

Woolworths NZ sought to enhance the customer experience by transforming their data science teams. Previously, these teams operated in isolated silos without standardised processes, hindering collaboration and knowledge sharing. The lack of rapid prototyping capabilities affected their ability to iterate swiftly and refine models for optimal performance and customer-centric business value.

Recognising these challenges, Woolworths NZ collaborated closely with Mantel Group to overcome obstacles and prioritise customer benefits. Together, we developed prototypes and templates to immediately improve their ML maturity, ensuring a focus on customer outcomes.

#### **Outcomes:**

- Introduction of a standardised ML project template and delivery practices applicable to any advanced analytics use case.
- Implementation of an orchestrated ML pipeline for streamlined development and deployment.
- Establishment of an ML model deployment framework for prediction services with integrated model monitoring.

Through this collaboration, Woolworths NZ achieved tangible customer benefits such as accelerated development cycles, reduced reliance on manual maintenance, improved data and model quality, and heightened business value realisation from their data science initiatives. Our customer-centric approach has empowered Woolworths NZ to deliver a more impactful and valuable experience for their customers. "Our wider business is reliant on our Analytics & Insight (A&I) team at Woolworths NZ. In May 2023, we reached an inflection point where servicing the business became blocked by maintaining our existing models or the feature library that supported them. We were bogged down by technical debt in the absence of having a method to maintain models in a light touch, hands off way.

Ultimately this hindered the A&I team's capacity to prioritise and perform more strategic, foundational pieces of work, including personalisation use cases. While so much time was being spent hand holding and maintaining our existing AI capability, we were not able to scale our AI in a way to best support the business."

> **Bonnie Law** Head of Data Science for Woolworths NZ

202

A Guide to Achieving Al at Scale: How Woolworths NZ is Charting their Course

Written by Kathryn Collier, Mantel Group

View and download the whitepaper <u>here</u>

27

## **Seizing strategic opportunities**

Building the case for transformation by thinking big and starting small

## Establishing infrastructure and processes to leverage LLM opportunities

Our machinery equipment client wanted to enhance customer experience by automating the transformation of highly technical invoice notes into customer-friendly descriptions. We established an end-to-end pipeline in the Azure Databricks environment using the Azure OpenAl service, which addressed the immediate business need and also paved the way for future Large Language Model (LLM) deployments. The result was the efficient delivery of LLM-generated invoice notes to service administrators via a Power BI report, ensuring significant efficiency gains. Our solution maintained a human-in-the-loop process, elevating quality assurance for enhanced customer satisfaction.

Concurrently, we empowered the client's data and analytics team for future LLM implementations. The comprehensive deployment framework we provided, including reference architectures and ethical guidelines, positions the client for ongoing benefits in efficiency, accuracy, and customer-focused innovation. **Thank you!** Let's keep the conversation going.

Connect with our Data & Al experts Thomas, Emma, or Catherine to dive deeper into how to utilise your data to gain a competitive edge.









Thomas MaasHead of Data & Al StrategyM thomas.maas@mantelgroup.com.au



Emma Bromet Mantel Group Partner, Data & Al <u>emma.bromet@mantelgroup.com.au</u>

Catherine Jordan
Principal Consultant, Data & Al
Cath.jordan@mantelgroup.com.au