Why and how you should prioritise AI within your data strategy

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Introduction

The ability to create actionable insights is at the heart of any data strategy. Data has evolved from a supplemental resource to a strategic asset capable of driving business success and innovation. With the proliferation of technologies that generate massive volumes of data, organisations find themselves dealing with a paradox: the potential insights stored within data are limitless, but these insights stay untapped without effective solutions.

The convergence of Artificial Intelligence (AI) and data strategy drives clear benefits here. By putting AI at the forefront of data strategy, enterprises can quickly uncover hidden patterns, predict trends, and make informed decisions, resulting in a competitive advantage and long-term success. By prioritising AI as part of your data strategy, your business insights may be realised much earlier than expected.

There are several key considerations to address before embarking full speed on an AI-first approach. These will also be discussed later in this article.

First, let's consider eight reasons why you should prioritise AI within your data strategy.

1. Rapid Data-Driven Decision Making

Traditional approaches to data analysis can be very time consuming and prone to human biases. AI, on the other hand, excels in extracting meaningful insights from vast and complex datasets. Machine Learning (ML) algorithms can uncover patterns, correlations, and trends that would otherwise remain hidden, enabling organisations to make more accurate and data-driven decisions.

2. Operational Efficiency and Automation

Implementing AI-driven automation within a data strategy can significantly boost operational efficiency. Repetitive tasks, such as data quality verification, can be automated, freeing up human resources for more creative and strategic actions. Moreover, AI-powered systems can optimize processes by identifying inefficiencies and proposing solutions in real time.

3. Predictive Analytics and Forecasting

AI's predictive capabilities empower businesses to anticipate future trends, customer behaviour, and market shifts. By analysing historical data, AI models can provide forecasts that guide strategic planning and resource allocation. This advantage is particularly crucial in sectors like finance, supply chain management, and marketing, where staying ahead of the curve is essential for maintaining competitiveness.

4. Continuous Improvement

The iterative nature of AI models ensures continuous improvement over time. As new data becomes available, AI systems refine their algorithms, resulting in increasingly accurate predictions and insights. This ongoing enhancement strengthens an organisation's ability to stay ahead of trends and make agile decisions.

5. Risk Management and Fraud Detection

Industries dealing with sensitive data, such as finance and healthcare, face constant threats of fraud and security breaches. AI excels at anomaly detection and pattern recognition, making it an indispensable tool for identifying fraudulent activities and mitigating risks. By continuously learning from new data, AI systems evolve to stay ahead of increasingly sophisticated threats.

6. Innovation and New Revenue Streams

The ability of AI to discover unique insights and ideas may stimulate organisational innovation. AI may find unmet market demands by evaluating data from many sources, leading to the development of innovative products and services. Furthermore, AI can aid in the identification of potential for diversification and the establishment of new revenue streams.

7. Competitive Advantage

Gaining an advantage over competitors is critical for survival in today's hyper-competitive business environment. Organisations that use AI in their data strategies can gain a significant competitive advantage. AI allows faster market adaptability, more effective consumer targeting, and the capacity to optimise corporate operations for optimal efficiency.

8. Scalability and Adaptability.

AI's versatility enables organisations to deal with expanding datasets and complexities. As data quantities increase, AI systems can process and analyse information more efficiently, ensuring that insights are created at a rate that matches the speed of business activities. Additionally, the adaptability of AI ensures that plans remain effective in the face of evolving technologies and marketplace conditions.

Noting the above reasons to prioritise AI within your data strategy, we should also discuss nine key considerations when implementing such an approach:

1. Does your company have a team of AI skilled employees who can deliver these initiatives?

Having the correct mix of technical and business skills to deliver AI is the foundation for success. All AI projects require a qualified data team, comprising data engineers who can shape the data into its correct format and one or more data scientists who can train and refine the Machine Learning models'. The team also needs a business owner who understands the business context of the data being used and expected outputs. This mix of technical and business knowledge working together will deliver a complete package of AI to the enterprise as each team member will complement all others.

2. Where to start your AI journey?

Deciding which AI project to start with depends on multiple factors: Positive return on investment and positive impact to the business being the key drivers. Often, it is sensible to focus on cases that align with the enterprise's outcomes with minimum risk and cost. The learnings from these can then be applied to subsequent cases, and the AI momentum started.

3. Adopt a value-oriented approach.

Choosing AI applications that generate definite value and impact with a positive return on investment (ROI) will help visibly justify future AI cases where immediate ROIs may not be initially evident. In addition, the learnings from each case can be communicated to all for reference, and adoption. When considering this value-oriented approach, the human element of available resources, training, and costs should also be part of the equation. Ongoing maintenance and AI model support is an important consideration in the cost equation.

4. Is the company's data culture mature enough to understand the implications of AI?

Adopting a data and AI-led approach across an organisation takes time. The only way for a data culture to thrive is with continuous sponsorship from the executive level, promoting the benefits to everyone in the business. The learnings from all AI projects need to be presented across the whole company. Future projects can then be created using the learnings from previous experiments, minimising failures whenever possible.

5. Company-wide data upskilling program.

By adopting a continuous data-skills improvements program, existing staff can be upskilled and progressed with the latest data engineering and data science technologies. Also, harnessing mentoring programs of senior data engineers to new junior data engineers will help develop a consistent company wide data culture and promote a continuous flow of data-related trends and initiatives. This will indeed help create a data-driven culture as more members of staff will be data trained to the same standard.

6. Hub and spoke data engineering and data science team architecture.

Having a central Hub team that covers data engineering and data science can provide support, guidance, and strategy to all the business unit data teams (spokes) in an enterprise. Quite often, the Hub team looks after “shared” data assets that are used across the enterprise. Each "Spoke” team then looks after their own specific data domain. The Hub team provides consistent governance, expertise, and guidance to all teams to ensure privacy and data security are maintained. The Hub team keeps centralised control where necessary and allows the Spokes’ teams to be as flexible and self-sufficient as much as possible.

7. Long-term investment.

As AI technology is ever-evolving, it would be prudent to prepare for a long-term AI roadmap. Develop a strategy that allows for an incremental adoption, permitting numerous flexible AI initiatives. Taking calculated incremental steps will allow time for the enterprise to analyse and absorb the results of each AI initiative. Adopting a long-term view of AI within the enterprise will allow for valuable lessons to be learnt from each project and made visible to all future initiatives. As the data culture of the organisation matures, future initiatives may take a lot less time as data manipulation templates may be reused or adapted, and existing Machine Learning models may only require slight modification for new business use cases.

8. Scalability and Adaptability.

The various sources of enterprise data are the life blood of all AI initiatives. Having solid data quality with concise master data management will ensure the data being fed into the AI models will produce the best results. Constant monitoring of all data sources with strict data quality rules ensures the best possible outcomes. AI may also be used to monitor and update erroneous data sources in advanced data practices. However, data extraction, transformation, and load (ETL) rules must be completely transparent so that the end user knows that the data has been manipulated en-route to the destination. A strong, easy-to-follow Data Governance strategy will ensure these rules are adopted by all and expectations fully managed.

9. Use Responsible AI Frameworks

Responsible AI Frameworks promote trust and reduce harm from AI technologies, centring on important concepts like safety, responsibility, transparency, and justice. They are a collection of standards and best practices designed to guarantee the ethical and responsible development, implementation, and usage of AI systems. Please update: By creating AI systems that adhere to these principles, organisations can create AI systems that benefit people, society, and the environment in a positive and transparent way.

Conclusion

Converging Artificial Intelligence (AI) with your Data Strategy can significantly accelerate better decision-making, task automation, new product development and risk reduction.

By addressing key considerations in adopting this approach, improving your business insights may be accomplished much sooner than expected. Businesses can swiftly find hidden patterns, predict trends, and make informed decisions, resulting in a competitive edge and long-term success.

About Akkodis

Akkodis is a global digital engineering company and Smart Industry leader.

We enable clients to advance in their digital transformation with Consulting, Solutions, Talent, and Academy services. Headquartered in Switzerland and part of the Adecco Group, Akkodis is a trusted tech partner to the world's industries.

We co-create and pioneer solutions that help to solve major challenges, from accelerating the clean energy transition and green mobility, to improving user and patient centricity.

Empowered by a culture of inclusion and diversity, our 50,000 tech experts across 30 countries combine best-in-class technologies and cross industry knowledge to drive purposeful innovation for a more sustainable tomorrow. We are passionate about Engineering a Smarter Future Together.

Find out more

If you would like to learn more about how Akkodis can help you apply Human-Centred AI in enterprise systems to empower employees and optimise customer experience, please contact our team.

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Engineering a Smarter Future Together

Leveraging the power of connected data to accelerate innovation and digital transformation.

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