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Harness the power of analytics and AI to predict what's next.

A 6-step practical guide to help you get ready for AI.

Are you ready for artificial intelligence?

Competitive advantage.
Accelerated decision-making.
Improved efficiency.
Increased customer retention.

Using your data to realize the benefits of artificial intelligence (AI) sounds good, right? Now you just need to work out how to do it.

Harnessing AI means having good data

88% of global C-level executives and IT decision makers believe companies incorporate AI because it's trendy, but most don't actually know how to use it[1]. It may not always be obvious that data sets the foundation for AI, but it provides the strength to build tailored customer experiences, targeted communications, increased engagement and more. Clients also tell us they're overwhelmed by the sheer volume and complexity of their data, with many lacking the tools and skills required to use it to solve their business problems – but it doesn't have to be like this.

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Get ready.

In this six-step guide, we aim to help you solve your data challenges to prepare for advanced analytics, cognitive computing, machine learning and the resulting benefits of AI. We'll show you how to get your data house in order, scale beyond the proof of concept stage, and develop an agile approach to data management. By continually repeating the steps in this guide, you'll sharpen your data and shape it into a truly transformational business asset. You'll be able to overcome some of the most common business problems, and work toward making positive changes:

- Improve customer satisfaction
- Reduce equipment outages
- Increase marketing campaign ROI
- Minimize fraud loss
- Improve employee retention
- Increase accuracy for financial forecasts

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Considerations before you get started.

Do you want to increase your profits by exploiting a competitive advantage through innovative data use? Are you looking to understand your customers better – their behavior and churn? Or do you want to identify new sources of revenue? Whatever the goal, if data is the driver, then continue reading.

What to do before taking the first step

First, you should identify the business outcomes and the value you aim to achieve. Then work out if AI will help get you there. Begin by taking your key business problem and breaking it down into several manageable issues. Sort them into order of priority to the business, speed to value and how easy you think they might be to implement. It'll be easier to find funding for priority problems. Then, figure out which key performance indicators (KPIs) you'll use to measure and demonstrate success. Just be aware that KPIs can mean different things to different people in the business, so aim to be as clear and consistent as possible.

Our advice before getting started

- **Apply a design-thinking approach** – acknowledge there may be multiple possibilities. Use this framework to take a different approach with your data. Uncover the right questions you want to ask and be prepared to experiment with ideas.

- **Identify a data champion;** someone who's passionate about the uses of data and the wider project. They'll help to convince others to get on board. He or she should be part of senior level or executive management, which means they'll have the vision, as well as the budget, to make things happen.

- **Be agile** when it comes to scaling your approach. Be ready to adapt to changes along the way.

- **Focus on your business outcomes** throughout the process, as opposed to getting caught up in the technology. While technology is critical to achieving your goals, it shouldn't be your driver.

Remember: Experiment to find value.

The six steps in this guide don't necessarily need to follow a linear format. We've presented them as our experts and data scientists see best, but every business is different and you'll benefit from taking an agile approach to the process. Don't be afraid to experiment to prove value or fail fast and start over differently. When you find something that works, you'll soon be able to scale up your success.

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Step 1: Take stock.

The first step to understanding your data, or improving your existing data management practices, sounds basic – but it's arguably the most important step to getting ready for AI: take stock.

Assess your current situation

In a recent survey Avanade carried out with Wakefield Research, respondents said their top three challenges to incorporating analytics are collecting and accessing appropriate data, determining the best way to analyze the data, and finding skilled data scientists[1]. If this sounds like you, then begin by simply working out where your data lives. You'd be surprised how many organizations would struggle to give an immediate answer.

Ask yourself what kind of data has already been captured. Is it structured data from internal CRM, ERP or customer service channels? Or is it unstructured data that circulates in the public domain via social media, shared documents and videos?

Evaluate how your data is being captured and understand if there's any governance in place. Identify any processes that help to ensure high data quality. Add tags or metadata to categorize and record key information, like which departments currently use a certain data field. It could be as simple as creating a master spreadsheet inventory to record your findings in one place. It'll become a valuable asset as you continue this journey.

Start small

Bear in mind the amount of data you could face initially may seem overwhelming. It's very easy to get lost trying to document everything all at once, so just focus on the data points that will help solve your priority business problem (see page 3). It's important not to burn yourself out before proving any value. For example, if you're a bank trying to improve customer churn, you might want to start by taking stock of all the data you have related to customer complaints.

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Step 2: Understand.

You've now created an inventory of your data to answer your business problem. You know what information you have to work with. What's next? Define your hypothesis. Look at your data's potential value and understand how it relates to your business goals and challenges.

Build the bigger picture

Remember the business problem you outlined before (page 3) and think about how it might correlate with your available data to formulate a hypothesis. Check if the data is capable of doing what you want it to, and if your initial hypothesis is viable, map out the next business problem and branch out with your findings. This is a great time to partner with other business stakeholders to work through the layers.

Next, think of ways to organize this data into manageable chunks and consider how they'll begin to support your overarching objectives. Taking this incremental, more agile approach to analysis will help you avoid complexity as your data and business success builds.

Be mindful of your data and its usage

The hypothesis you create will ultimately be defined by the outcome of Step 1 of this guide – taking stock. The data you can access may limit your actions initially or force you to prioritize the type of hypothesis you'll be able to take forward and test. That's okay. Just be realistic about what's available to you. And if your data doesn't help achieve your outcomes, use this opportunity to strategically acquire data that does.

Finally, this is the time to be mindful of any privacy laws in place. Make the effort to understand upfront what data you're allowed to store and use, especially with revised European General Data Protection Regulation (GDPR). You must consider data ethics, too. 87% of the people we recently surveyed agree that their business is not fully prepared when it comes to addressing ethical concerns related to new technologies[1].

Case study:

Suits you, sir.

A large retailer wanted to personalize its in-store customer experience. We analyzed the data gathered from online customer accounts and loyalty cards to implement a facial recognition system that alerts assistants when someone enters the store, instantly providing an overview of that customer's buying behavior and interests. Understanding the data in this way enabled us to help assistants tailor the in-store service and improve the overall experience.

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"We started looking for a partner who had the competency as well as the capacity to solve our governance challenge. Avanade was a natural choice, as they had both."

Tom Erik Tjønneland, Head of the Business Intelligence Competency Center, DNV GL.

View case study

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Step 3: Focus.

You know your business problem, what data could help you answer it and how you might use that data. Now you need to narrow things down, decide on what data elements matter to you most and focus your attention on them.

Keep your eyes on the prize

Most organizations attempt to collect every bit of data they can, saving and storing it just in case. There's nothing wrong with that. It's a good thing because it can be cataloged for future use. After all, you may have to come back to it again, so any understanding is helpful. But it's important not to waste time trying to analyze everything all at once.

Remember the outcomes you're looking to achieve. Rationalize your data sets – why are they important? Only concentrate on the data that matters for meeting your immediate objectives. Be single-minded at this stage because if you start analyzing a broad range of varied data types all at once, you'll only end up with multiple outcomes, and none of them particularly strong. AI relies on a constant flow of robust data. You need 100% accuracy to be successful.

Case study:

Driving future predictions.

In order to help a luxury car brand avoid unwanted customer complaints about engine failure, we decided to get one step ahead of the problem. In just six weeks, we analyzed a vast amount of sensor data in real-time within vehicles, enabling accurate predictions to be made around when maintenance may be required. This ensured any potential issues could be identified and fixed before they happened, reducing complaints from disgruntled drivers and increasing overall customer satisfaction.

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Step 4: Prototype and prove.

Now that you've defined a clear path to follow, it's time to test your data. Ask questions. Train algorithms to find the answers. And if you haven't got the in-house capability to do so, find a partner who does.

Test your hypothesis

Use the relevant data points you've identified in the previous steps to start testing your hypothesis. Implement algorithms; run a set of rules and calculations to make predictions about future outcomes. Look for patterns and behaviors. Just be aware that this process is iterative, and may require you to look for other data sources to answer the question you're asking. Perseverance is key.

A key tip is to think outside the box. Leverage an external partner with the learnings and experience to gain fresh insight and direction. You'll be awakened to the possibilities of what your data is really capable of.

Demonstrate value; prove your data's worth

Your business, your investors, your users: there will come a point where people will want to see something tangible from your data. A solid prototype can do this. It can prove the value of your data by showing it in action. But don't forget to start small. This will help you avoid wasting time on failed models, while those that demonstrate value can be quickly replicated and scaled across the rest of the business once they've had buy-in.

Be sure to document examples of your prototype's usage and outcomes and show its capabilities in full. Use the data champion you've appointed to evangelize early successes and get more people involved.

Case study:

It's good to talk.

Speeding up the order lifecycle was a key priority for a major telecommunications company. We analyzed customer data, order details and network information to create a seamless voice recognition system that could quickly find out why a customer was calling, and prioritize their requirements to reduce delays and improve customer service experiences.

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Step 5: Organize and design.

You've proved your hypothesis and your prototype is adding value. Next you need to organize and design how your data insights will be used daily in real-life business scenarios and processes. How do you operationalize and standardize them to share with the rest of your organization?

Make your vision real

A lot of organizations get stuck at this stage because they don't know how to move on and integrate their prototype into their existing business processes.

For instance, we worked with an insurance firm that had an abundance of data, but were unable to turn it into insights that would benefit their business. One of their main problems was the amount of lawsuits they had – and the costs they incurred. We helped them apply machine learning to a set of claims data that usually result in lawsuits. Through data analysis, we found that when there's regular contact with a claimant, the case is less likely to turn into a lawsuit.

We used these findings to improve the existing process by implementing voice recognition, which enabled the firm to regularly provide personalized customer service updates through chat bots to identified callers.

In this example, adjusting the process and educating staff about the changes was the operationalization of their data insights. It enabled the firm to make significant changes and measure the impact of those changes to their bottom line.

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Step 6: Create value over and over again.

This is it. The final step in the journey. Put your data to work for the business, just as you've planned. Monitor how your processes progress and then start all over again. Return to Step 1 and take stock of things before going back through the entire cycle. It's the best way to create value and readiness for AI in the long run.

Go back to the future

Continually repeat the steps in this guide to sharpen your data. The process will also help you identify further use cases within the business where you can apply data technology and extend your overall capability.

When you're ready to adopt various components of AI, such as bots, intelligent automation, and predictive analytics, you'll know exactly where to point your algorithms for the right outcomes, because your data is organized. But remember that as AI continues to advance, the number of things within your business which depend on data will increase. If you have high-quality data, the business value of the AI application will be equally high.

Use technology to your advantage

Embrace your data and the endless potential of AI. Harness AI to do the tasks that are unnecessarily taking up your time, like spending weeks on generating quarterly business reports. It'll free your staff to add value to your organization and drive your business forward. To prevent employees feeling nervous about it, look at using change management and take a human-centered approach to AI.

With the same open mind, you should take advantage of the advanced technology that's available today to reach your goals. There's really no need to build it yourself and you'll only be left behind when things move on. And they will move on. Fast. Very few organizations today can keep up with the tech giants investing billions every year into new data capabilities and platforms. So, focus on creating business value, not a piece of technology.

"This new data analytics capability is a significant competitive advantage in the loyalty marketing niche. The scalability and functionality of the data analytics solution we've developed with Avanade has also dramatically improved Edenred's operational efficiency and productivity."

Johann Suchon, Managing Director
China & APAC Marketing Services, Edenred

View case study

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Why Avanade?

We can help you make the most of your data – and help you take advantage of AI. We have the depth of experience, the breadth of services and the speed-to-value to get you where you want to be, fast.

Why choose to work with us?

We will accelerate your ability to get up and running, leveraging the very latest of Microsoft Azure, cognitive services and our analytics capabilities. We can help you:

- **Unlock the insights you are looking for** and get the most help from them.
- **Take advantage of our deep industry knowledge,** proven strategies and best practices to drive successful business results.
- **Test and experiment** using a controlled sandbox – without the pressure of long-term commitments or investments.
- **Identify and connect to multiple data sources quicker,** including some of your legacy systems, using a wealth of Avanade assets and intellectual property.

- **Leverage open-source Microsoft components** that can handle complex workloads with little intervention required.
- **Harness cloud capabilities,** enabling storage, management and scalability while keeping costs under control. You only pay for what you use.

Avanade at a glance

3,500 analytics professionals

100+ big data consultants

1,000+ data scientists

7 off-shore delivery centers

Case study:

Boiling point.

A boiler company needed to reduce the time it took to make repairs. It was taking three days on average to get engineers onsite to fix older models that didn't have electronic indicators, which meant lots of angry customers during cold winter months. By analyzing weather patterns, social and demographic client data to make forecast predictions, we helped the company predict – with 98% accuracy – when and where their boilers were likely to break down.

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A 6-step practical guide to get ready for AI.

Get started today.

If you want to accelerate your journey from analytics to AI, join one of our workshops.

Design-led data management workshop

Embark on a multi-day engagement that enables organizations like yours to drive a break-through in data management practices. Learn how to overcome the challenges you face and make real progress with our support.

Discovery workshop

Join our multi-week engagement that brings you through a full data lifecycle – including the "take stock," "understand," "focus," "prototype and prove," "organize and design," and "create value over and over again" steps. It provides unique insight into the detail of data management.

Contact us to learn more about these workshops.

www.avanade.com/ReadyforAI

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