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How to kick off your company's first AI project.

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Ways of thinking, preparing and acting to get started with AI and machine-learning approaches right now.

Let’s face it: artificial intelligence is going to be the new normal. In a few short years, nearly every application in use will feature machine-learning approaches that will take us beyond the boundaries of traditional computing.

AI won’t be just an add-on or nice-to-have feature; it is destined to be the core technology enabling organizations to bring their processes into the 21st century, become future-proof and differentiate themselves successfully from their competitors.

Without further ado or high-level explanations, let’s dive right in by exploring a few myths about AI projects and then following up with six steps to AI project success.

Chapter 1

Busting AI implementation myths

MYTH 1

My business needs big data to get started with AI – and an end-to-end data management strategy. That's going to take awhile.

BUSTED

You can start with this technology if a single process is mature and its accompanying data is well managed. Even if you're not there yet, bringing data and process maturity up to speed for one process is very feasible. A comprehensive data management strategy is not required to introduce AI to your business.

The critical role of good data in AI

It can't be overstated: a successful AI project is driven by clean, relevant, accurate, healthy data. However, you don't need 'big data' (extremely large data sets that can't be processed without specialized tools). In fact, so-called 'Excel-style' data consisting of a few thousand rows of data points is often sufficient to train a well-designed model.

High-quality data is needed to teach or 'train' the model to recognize objects, predict demand, inspect quality, etc. Low-quality data, e.g. 'shifted' data with unaligned labels and production process parameters and quality measurement outcomes that are unrelated, will lead to inaccurate – and thus useless – models.

MYTH 2

When it comes to implementing AI, businesses need to think big to get tangible benefits out of it. It'll be years before we're ready.

BUSTED

Small, well-defined experiments are the path to AI success in the short term and the long term. Short-term victories increase trust and buy-in, eventually leading to the larger-scale projects that revolutionize businesses.

Start small for big benefits

What's the best way to eat a chocolate elephant? One bite at a time. The same goes for implementing AI or machine-learning projects in your business. Optimizing every single one of a company's operational processes from end to end isn't just terrifying in its scope – it's nearly infeasible using an agile approach.

You will change your company for the better by introducing AI. However, it's important to begin with small-scale, well-defined experiments that target individual processes. The introduction of new technologies like AI may lead to resistance, unrealistic expectations and fear. Trust-building is essential to managing customer expectations, and small, short-term successes will inform, clarify, inspire confidence and foster buy-in across the organization. Involve small groups of people with interest in the project to explain to their colleagues what AI is, what it can do and how it will impact roles, responsibilities and processes. Get started quickly.

MYTH 3

We need a full strategy before we even think of introducing AI to our company.

BUSTED

These time- and resource-consuming tasks come after your first successful experiments.

Succeed first, strategize later

Defining a concrete AI strategy, choosing a platform, setting up a governance structure, initiating change management exercises, informing the trade union, mapping out an end-to-end roadmap, etc. will take time. Time that you don't have, because AI technologies are already changing the face of business and everyday life. If you begin with strategic exercises, chances are that three years from now, you probably won't have started your first machine-learning project.

These big strategic moves come after your successful experiments, once you've demonstrated a use case with quantifiable impacts on the bottom line.

Chapter

Six steps to AI success

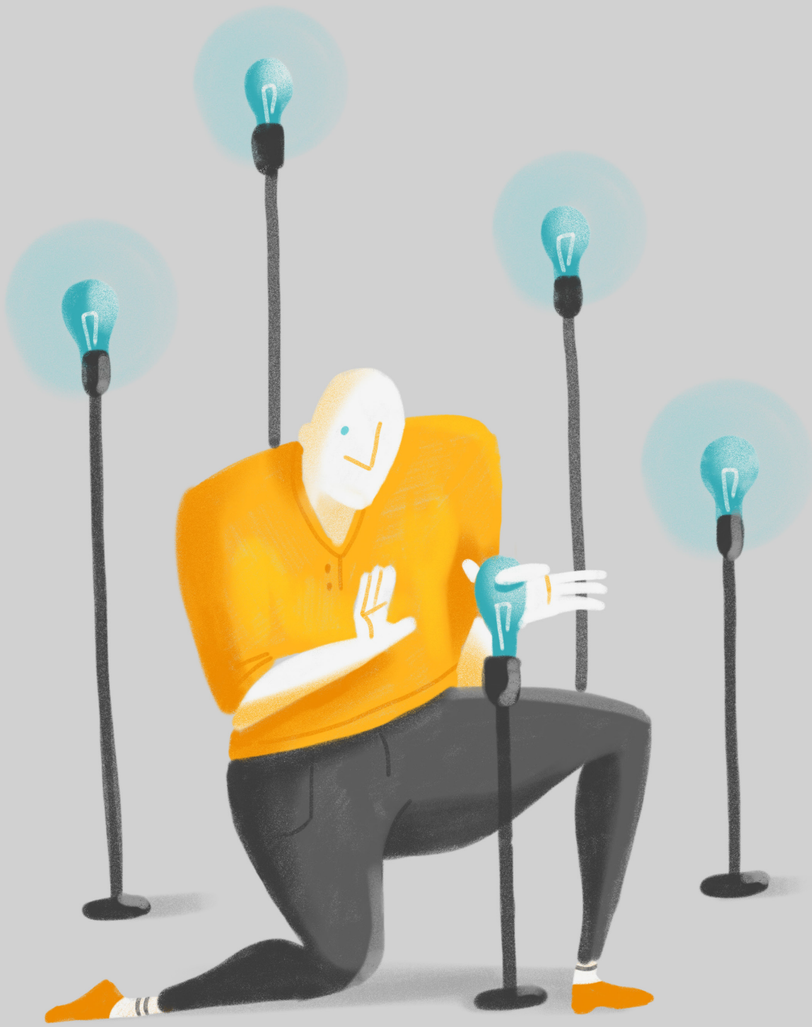
Here at delaware, we follow six steps when helping our clients take a pragmatic, well-defined approach to co-collaborative AI implementation. These steps are great starting points, and they offer a framework around which you can map out your own plan of approach.

1. Gain insights

This is the discovery phase. By exploring examples of real use cases, you can gain an understanding of what AI and machine learning can do, and identify areas in which it can be relevant for your business. The following points offer some structure around which to build your early case.

- Assemble and discuss concrete use cases.
- Share them with affected or interested stakeholders to generate early support.
- Organize an exploration session with your core team in which participants identify where processes are suboptimal.
- Consider the business contexts of different AI applications.

2. Trigger ideas



Have your engaged group brainstorm in an open, non-judgmental setting. Focus on areas where specific processes or approaches “go wrong” in your company, which could theoretically be solved using AI approaches.

- Begin with a divergent approach – encourage your team to go in as many directions as they want.
- Converge ideas by clustering them around specific dimensions, such as business activities, processes and departments, etc.
- Vote on which ideas offer the highest potential in terms of efficiency, cost reduction, visibility, etc.
- Discard processes that are too complex, constrained, risky or immature.
- Select between 1-3 feasible projects.

3. Define value

To further refine your list of potential AI projects, you have to define the business value of a successful outcome in concrete terms. This is extremely useful even if you have already identified one project to start with. Explore the following questions:

- What is the quality of the data associated with the process? What are its sources?
- How much efficiency, in percentage points, can be gained? How does this translate to the company's bottom line?
- How complex and mature is the process?
- Are there any constraints or limitations that could lead to project slowdown or failure?
- What resource/input streams are used?
- Are there privacy or ethical considerations associated with the process?

4. Start the experiment

By this point, you know what your core team and relevant stakeholders think about the project. This is where a well-defined, agile IT project management strategy comes into play. The steps are iterative, and scrum/agile development methods are recommended to avoid waterfall development and converge rapidly to project results. Your IT team or partner will:

- define the problem and success criteria from a business perspective;
- explore, collect and prepare the relevant process data;
- select the algorithms/platform to be used;
- design and refine the model;
- train and test the model;
- evaluate the platform outcomes from a business perspective;
- integrate the platform with existing systems and tools;
- operate, maintain and enhance the platform.

5. Obtain commitment

Share the business value added by your AI experiment with executive stakeholders. Begin the processes of obtaining the express, strategic commitment of management, IT and all other people and groups you need to initiate additional AI experiments.

Embed AI into the future of your business.

6. Establish strategy and governance

This is finally the point when your business should develop its AI-related corporate strategy and governance structure. In addition to a comprehensive strategy, the business must:

- Select a large data platform to accommodate more projects and handle any security requirements;
- Define a portfolio management approach to prioritize new AI projects;
- Introduce change management initiatives as more people and processes are affected by AI platforms;
- Define a release management approach to managing platform updates, adaptations and improvements. Agile devops processes are recommended to ensure proper handling security and availability of the solution.

Chapter

delaware can help you

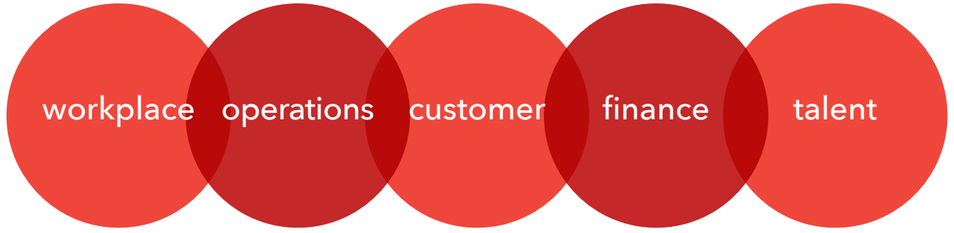
Do you need targeted, experienced assistance with your AI project? Are you looking for specific skillsets to support your AI integration? In search of a partner that works alongside your team to facilitate a smooth, pragmatic project with rapid results? Our AI team can help.

We believe in AI

We're convinced that AI will (undoubtedly) change the face of business – and everyday life – in the years to come. It's a powerful tool that brings opportunities for huge gains in efficiency, customer service and profit – but a gradual evolutionary approach is key to supporting the development of humans and machines as partners.

AI does not threaten your business – it empowers it, performing cognitive tasks more rapidly, safely and cheaply. At this stage of development, it's important for companies of all sizes to engage with it, try things, make attempts, grow knowledge and experience by taking small steps forward – no matter what the scholars say about sweeping strategies and comprehensive roadmaps.

Our strengths



- We offer a complete understanding of multiple industries and business processes, enabling us to help you select projects with realistic growth opportunities.
- We take a pragmatic approach to AI, using existing tools, algorithms and frameworks where possible, prioritizing speed and effectiveness over risky and time-consuming ad hoc solutions.
- We never leave you out in the cold – we ensure smooth integrations of AI solutions with your existing systems, applications, process and data sources.
- We can help you with almost anything related to AI, from strategic assistance and tech expertise to change management to business transformation.
- We maintain your AI environment, hosting, operating and enhancing your platform after it's up and running.

Keep digital dexterity in mind

As with the introduction of any new technology, your people have to be prepared for – and eager to embrace – the resulting changes in their roles and responsibilities. ‘Employee digital dexterity’ leads to greater performance, enhanced self-development and a more interconnected, collaborative working culture.

In addition to providing experienced minds and passionate hearts to enhance your AI project, we also offer guidance in the business transformation and cultural change needed for long-term success.

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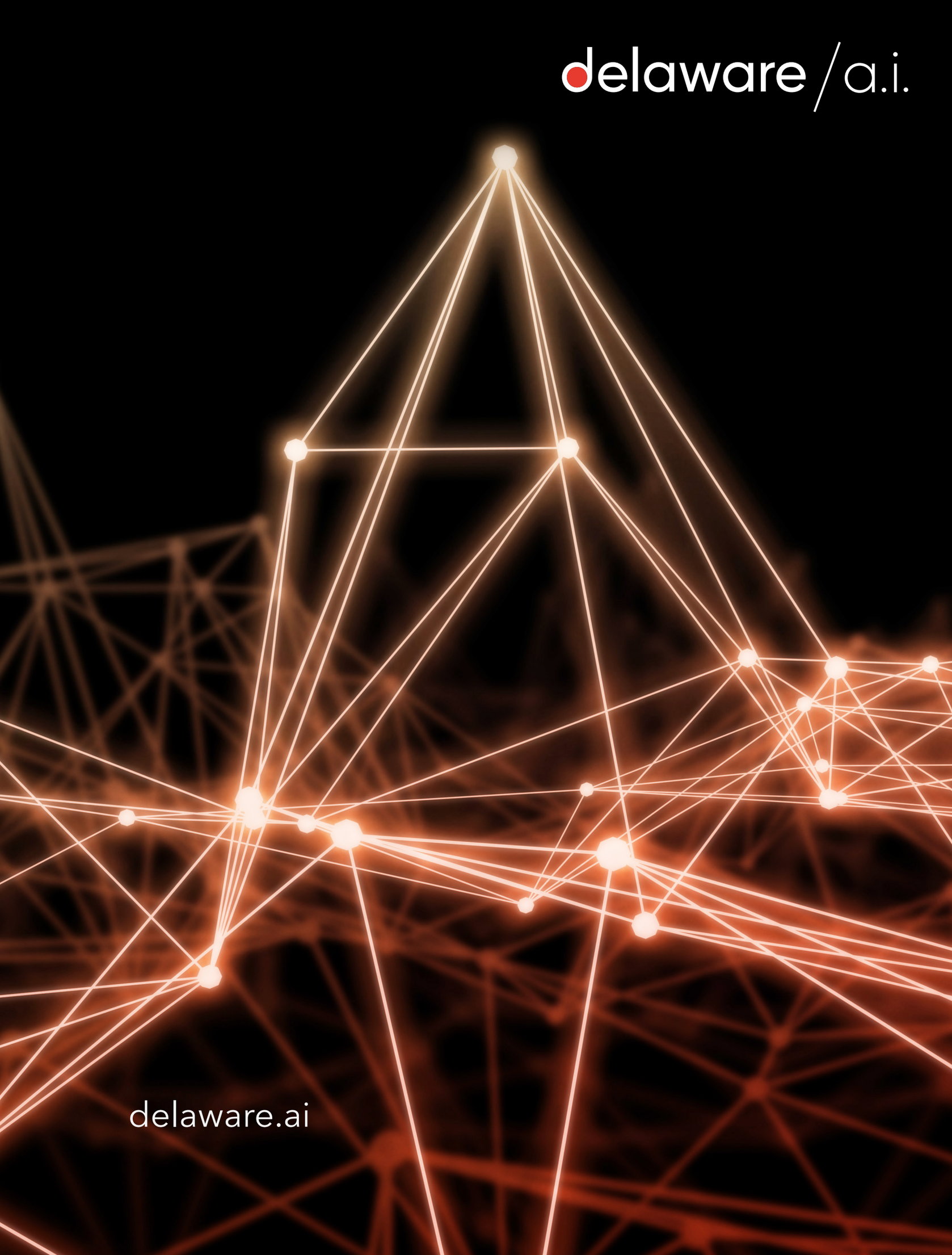

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