

TECHNOLOGY

How to Start an AI Project in Your Business

by Mark Esposito



Artificial Intelligence (AI) is alluring. But in its current incarnation, AI is nothing more than a tool. And like all business tools, they are only effective when the right processes are built around it.

✔ **INSIGHT** | NOTE 20 Jun 2018

In the past year alone, we have seen repeated headlines in the news saying that artificial intelligence (AI) will play a bigger and bigger role in our lives. And it's fairly true. We now have smart gadgets at home that respond to voice commands; computer voices that pick up when we call a national customer service line; and bank fraud alerts that come from AI bots monitoring our accounts 24/7 for suspicious activity.

The takeaway from all this is the inevitability that companies will need to integrate AI technologies into their business strategy if they want to maintain or gain new advantages before their competitors do. Accenture recently found that 72% of surveyed senior executives agree that AI will be critical to their companies' market differentiation. Yet, the business reality seems to suggest something entirely different. With the exception of GAF A (Google, Amazon, Facebook and Apple) and BAT (Baidu, Alibaba and Tencent), which all have the knowledge and financial means to explore the use of AI, the adoption rate among many Western companies and industries has been sluggish. A 2017 report from the Boston Consulting Group and the MIT Sloan Management Review found that only 20% of companies have begun integrating AI into their products and processes. Dan Ariely once said, "big data is like teenage sex: everyone talks about it, nobody really knows how to do it, everyone thinks everyone else is doing it, so everyone claims they are doing it." This appears to also ring true for AI.

So, what can explain the slow uptake of AI among businesses? One reason, we believe, is unfamiliarity. Androids and self-driving cars are still what people imagine first when they think of what AI represents. But AI is much more than that. While it is easy to believe that AI can potentially be a mighty – and sometimes almighty – technology with the potential to transform companies, determining the actual role of AI within a company can be far more elusive: what specific functions can various AI products perform? What exactly are the benefits? What business issues can they really tackle? While brainstorming high-level AI applications can be exciting as a part of strategy exercises, once descended from the ladder of abstraction, working out how to integrate AI into existing operations demands a great deal of work and time.

Even when executives have a strong desire to employ AI into business activities, their busy schedules and other priorities often prevent them from being able or willing to divert the needed time, effort, and energy to go in depth into the operational details. Moreover, even if they do agree to spend the necessary resources, there is always a chance that executives are intimidated by the complicated technical aspect of AI. This poses a circular impasse: without an understanding of the technology, it is difficult to figure out what business objectives to pursue; but without knowing the specific aim(s) to be achieved, it is not easy

to see what kind of AI technologies are needed and how they would work. But it can be done. Advanced industrial stalwarts like GE and BMW have already made the leap to integrating AI into their factories.

But what if you don't have the same type of resources as a large multinational corporation? There's good news. The cost of AI robotics is now less than \$25,000 per machine. With the cost barrier falling, resting on your laurels is not an option as competitors will eventually move forward with AI capabilities. Fortunately, you don't have to dive in head first in order to get your feet wet. For executives in a traditionally nontech company who are ready to get started, we offer four steps to help you begin:

- **Identify a very thin slice of business activity in which AI can help**

Larger AI-implementation projects can become too complex in short order, and companies risk losing time, energy, money; and (even more importantly) momentum and enthusiasm. Having in mind a very narrow business objective with one goal to achieve is a better way to get started with AI. This could be as basic as using AI programs to process online orders, or to read handwritten forms to automate data entry. Chicago-based firm West Monroe Partners did exactly the latter. With business booming, the volume of invoices was quickly outpacing the finance department's capacity, so the team was selected to implement an AI bot on a Lenovo Thinkpad to help with the data entry. When trying to spot an AI opportunity, it is often a good idea to reach for quick and easy wins.

- **Concentrate on boosting productivity or reducing costs**

For a first AI project, we urge companies to look at productivity and cost reduction (as opposed to revenue-enhancing) opportunities for a simple reason: you can calculate the clear economic result of deploying AI. This makes it easier not only to compare the savings before and after the project, but also to get needed buy-ins within the company. In the above example, West Monroe Partner's finance staff were freed from the more time-intensive, low-skill work to focus on higher-level work such as account reconciliations. They also trained their bot to process the invoices. When the employees processed them by hand, each invoice took five minutes, but with their

“Hal9000” bot, each invoice gets processed in one and a half minutes. In a more dramatic example of productivity gains, software maker Autodesk improved their customer response times by 99% using a custom virtual agent built on IBM’s Watson AI platform. Choosing measurable activities makes it possible to quickly quantify the impact that AI can make in the workplace.

- **Do reinvent the wheel**

AI in and of itself accomplishes nothing. It is only useful when it supports your existing business. So to accommodate new AI implementations, executives must be ready to modify existing processes and workflows, if not to design entirely new ones. For instance, in farming, a decidedly nontech industry, AI is now used to help identify problems with crops, but it couldn’t have been done without tweaking a few things—like adding airplanes and cameras. The traditional method meant farmers and field hands had to check every field manually with limited tools, but now, AI programs process high-resolution photographs taken from several thousand feet above and are able to spot crop disease indicators weeks before the naked eye can see them.

Unlike the Internet or even blockchain, AI is not an infrastructure technology. In its current incarnation, AI is nothing more than a tool. And like all business tools, they are only effective when the right processes are built around it.

- **Get more involved with tech folk**

Another key insight is that AI cannot, in most cases, fully remove all human involvement in a business process. Success therefore depends on getting a new process right for AI (sometimes called “cobots”) and people to work together. Getting to this point means that executives will need to work with both business and technology managers to ensure smooth development, implementation, and maintenance of the new capabilities. This does not mean that executives need to know how to code. Rather, it means working in closer proximity so that face-to-face interactions become habit and casual conversations become the inspiration for

future direction. Tech companies have understood this for a long time, which is why Google's AI team is now on the same floor as the CEO.

The general consensus among companies is that machines will never completely eliminate the human element, but a warning sign is out there for management: managers who use AI will replace the managers who don't. Applying AI in a business setting is no small feat. Like learning any new skill, without knowing what are the first steps to take, it can be both disheartening and discouraging. And like learning something new, it is often much harder in the beginning. Starting an AI project is the same, we just have to persist.

About the Authors

Terence Tse is an Associate Professor at ESCP Europe London campus and Co-founder of Nexus FrontierTech, an Artificial Intelligence Studio. Terence has also worked as a consultant for Ernst & Young, and served as an independent consultant to a number of companies. He has published extensively on various topics of interests in academic publications and newspapers around the world. He has been interviewed by television channels including CCTV, Channel 2 of Greece, France 24, and NHK. Follow him on Twitter: ([@terencecmtse](#))

Mark Esposito is a Socio- Economic Strategist and bestselling author, researching MegaTrends, Business Model Innovations and Competitiveness. He works at the interface between Business, Technology and Government and co-founded Nexus FrontierTech, an Artificial Intelligence Studio. He holds an appointment as Professor of Business and Economics at Hult International Business School and he is equally a faculty member at Harvard University since 2011. Follow him on Twitter: ([@Exp_Mark](#))

Danny Goh is a serial entrepreneur and an early stage investor. He is the partner and Commercial Director of Nexus Frontier Tech, an AI advisory business with presence in London, Geneva, Boston and Tokyo to assist CEO and board members of different organisations to build innovative businesses taking full advantage of artificial intelligence technology.

Hajime Hotta is a serial entrepreneur and an early stage investor with a strong academic background in artificial intelligence (AI) and AI web applications. Received Ph.D with a study of neural networks. He was the inventor and product lead of AI-backed Ad Tech at Cirius Tech, which was acquired by Yahoo Japan, and also a CTO at Naked Tech, which was sold to Mixi Japan.



Mark Esposito [Follow](#)

Dr. Mark Esposito is Professor at Hult International Business School and at Thunderbird School of Global Management where he co-directs the 4IR Initiative. He co-founded Nexus FrontierTech and advises national governments. He has written over 150 articles and edited/authored 11 books. His next book, The Great Remobilization will be published by MIT University Press in 2022.