



Expert Insights

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Artificial intelligence: The killer app for data

IBM Institute for
Business Value



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It's critical to understand that AI is not one technology.

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Talking points

Understanding AI

Not one technology. A set of technologies and building blocks.

Strategic approach

AI plans should tie to the specific business value you're trying to create

AI isn't an outcome

It's an enabler to help enterprises achieve goals

Artificial intelligence for business operations

Decision makers, stakeholders and influencers agree there is strong, transformative value in artificial intelligence (AI) with the potential to disrupt and replace current business architectures and enterprise software.

However, at times, AI is hyped, undefined and pervasive – all at the same time. And it fosters emotional and, sometimes, heated discussions. As with many new technologies, initially those discussions are more focused on consumer-facing products, such as self-driving cars, package delivery drones, or robotic home helpers. The broader market has not yet fully come to terms with the impact of AI on business-to-business (B2B) and enterprise operations.

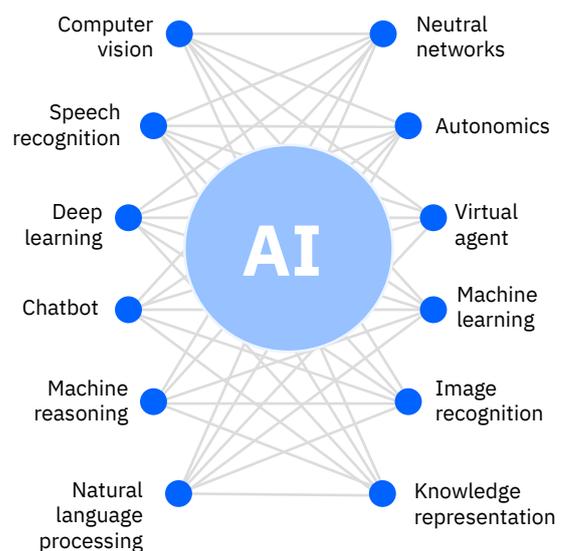
Unlocking the value of AI

It's critical to understand that AI is not one technology. It is a set of technologies and building blocks that include natural language processing, machine and deep learning, neural networks, virtual agents, autonomies and computer vision. See Figure 1 for a depiction of the various building blocks included under the umbrella of AI.

As expected with nascent technologies, many organizations are knee-deep in AI pilots and proofs of concept (PoCs), largely focused on a “bolt-on” approach. They are applying AI at the edge of the enterprise and foraying piecemeal into exciting but isolated uses, such as adding intelligence to robotic process automation (RPA) and conversational services such as chatbots.

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Figure 1

The building blocks of AI¹



To help enterprises formulate more strategic, actionable and effective use of AI, HFS Research and IBM have created this report on how to start an AI journey. The report uses insights from IBM's Institute for Business Value (IBV) and recent HFS research, as well as real-world experiences taken from interviews with clients and field practitioners.

Staying true to four simple steps ultimately enables AI and other exponential technologies to become key differentiators for the enterprise.

The success factors for the AI journey, as depicted in Figure 2, are:

1. Strategy: Don't forget the "why."
2. Data: There is no AI without data.
3. Execution: Avoid AI tourism.
4. Change: Heads, hearts, and hands.

1. Don't forget the "why"

For every moment spent trying to execute on the how of getting digital transformation done, the approach should tie back to the why and what business value you are trying to drive. Improving a business through digital transformation requires an enterprise-wide approach.

All efforts, top-down and bottom-up, need to support the same focus and approach, even at the task level. This requires C-suite commitment to set the business outcome directives and framework, as well as coordinated business and functional experts to help define the focus and execute the vision.

2. There is no AI without data

Every enterprise has some good, clean, usable internal data. That data can be supplemented with licensed material from sources such as The Weather Company and Bloomberg, and from publicly available information, including public company filings and transit schedules. Internal and external data can be used in concert to enable data-based decisions and cognitive learning.

Figure 2

Four success factors for starting your AI journey



If it doesn't scale, it is just an interesting project

Use all available sources of data to get started and drive quick wins, while creating a clearer overall data strategy. Always start with the value you want to create and then see what you have that can help enable it.

HFS research of 460 Global 2000 enterprises reveals that only 22 percent of organizations have more than half their data structured.² Yet without AI, it is very difficult to analyze unstructured data.

A variety of tools, such as accelerators, adapters, plug-ins, and microservices, can assist in getting data into a format that can be optimized for AI. Time is of the essence for most companies, thus getting access to and optimizing current data stores through various accelerators can move the needle while larger data management structure concerns are addressed.

Make data the cornerstone of your delivery strategy. The holy grail of service delivery is at the intersection of automation, analytics, and data, particularly around the blending of iterative data inputs with minimal training of algorithms.

3. AI tourism: Don't just visit – plan to stay

AI is cool and PoCs are on the rise, but many of them never reach the pilot or production phase because they are not focused on solving critical business issues, do not have senior executive support or have no plan for scaling. This is called "AI tourism." If AI PoCs are not aligned to specific business outcomes and lack a vision for production, they are a waste of time and effort.

Nothing has bold impact in isolation. Enterprises need to optimize coordination across AI initiatives. The connective tissue that links project execution to enterprise value creation is the architecture and constant focus on supporting and enabling the corporate vision for transformation and business outcomes. A good Center of Excellence (CoE) with integrated IT and business leadership can create and manage strong governance and change management principles. The easiest part of mitigating the silo effect is regular and frequent communication with all stakeholders.

There is no singular starting point for automation and AI journeys. Where to begin depends on the company's structure, needs and business problems it is trying to solve or outcomes it is trying to achieve. A retail company that wants to embrace digital marketing to improve cross-selling, but with no integrated data across brands, may need to start with optimizing its data structure. A financial institution looking to improve its cost-to-income ratio may begin with RPA to begin refining processes and removing cost. Regardless of the starting point, there is always a need for good, accessible and well managed data.

Focus on reimagining your processes rather than applying AI as patchwork. The goal of your AI projects should be to solve problems that haven't been worked out by other technologies and approaches. Seek out specialist consultancies that can help drive the process, leveraging approaches such as design thinking to reimagine your processes, co-investments to share risk and innovation through collaboration.

Once you have achieved a minimum viable AI product, you need to reflect on how to scale the model. This is often where enterprises get serious about data management. Because if it doesn't scale, it is just an interesting project.

Case study

Groupama, an insurance and banking group based in France, is embracing data and AI through its Italian subsidiary, Groupama Italy. In 2014, Groupama's auto insurance business's technology needed modernization and transformation to improve its capabilities at profiling risk, managing fraud and driving improved customer experiences. The company set its sights on embracing telematics to help achieve these objectives.

Work on telematics commenced early in 2017. Initially, simple things were hard. Basic functionality such as matching data from customer accident declarations with the data from the in-car devices was incredibly challenging because Groupama Italy didn't have a platform that integrated the two. This integration and matching were enabled by a data lake solution. Once the matching was enabled, the company was able to move on to testing and validation of data, a previously impossible task when all data and decisioning was provided by a third party.

Groupama's telematics offering went live supporting Groupama Italy clients in January 2018. The focus has been on getting the basics correct by developing the platform and optimizing the data. Groupama Italy has now moved from 30,000 telematic-enabled policies three years ago to now almost 500,000 policies, with 35% of its insured vehicle portfolio consisting of connected cars. The company's loss ratio has also improved throughout the journey. And the team is generating tons of new data with the in-car devices—data to which it previously did not have access. In the words of their former deputy CEO Yuri Narozniak, "Data in the digital economy is the new gold."

To read more about Groupama's success in using AI to make the most of its data, please refer to the HFS and IBM report "Making AI the Killer App for Your Data."⁴

4. Changing hearts and minds

AI requires talent that understands the intersection of data and algorithms, as well as their impact on process chains and workflows. The moment you move out of the realm of lower level RPA, forget about notions of plug-and-play. Advanced projects require highly specialized talent and these skills are in high demand. According to an IBM Institute for Business Value (IBV) study, the lack of availability of skilled resources or technical expertise was the top-ranked barrier to AI implementation – cited by 63 percent of the executives surveyed.³ Many enterprises are using a combination of training, hiring and partnering to obtain the skills they need. Invest in talent that blends data engineering and data science, as well as expertise that can appropriately apply automation and analytics to solid data platforms, libraries and machine learning. Without this talent, it's difficult to scale.

Collaborating with an experienced partner can help drive faster business results. Commitment-driven co-innovation with defined objectives and milestones can yield strong results. Partners often dramatically help with speed, talent and technology. Success is ultimately dependent on making sure there is commitment and a laser-like focus on achieving outcomes.

Change management is key. Organizations today still see a lot of headcount reduction from RPA and AI, which causes automation anxiety. Changes in how work is done, and the role human talent plays, require holistic change and cultural management. This is not a one-time event. Your ability to manage ongoing IT and business change with the buy-in of your employees can be the difference between success and failure.

A practical approach to AI can yield exponential dividends. While there is a lot of hype and confusion around AI, it is real and has immense potential value for enterprises. At this juncture, it is critical for enterprises to develop a strategy and vision for AI and then begin to execute the use cases and solve the problems that make the most sense for their business objectives.

Data, in all its myriad forms, is what ultimately teaches and enables cognitive capabilities.

Effective AI may only be a few steps away

While there is a lot of hype and confusion around AI, it is real and has immense value potential for enterprises. At this juncture, it is critical for enterprises to develop a strategy and vision for AI and then begin to execute the use cases and solve the problems that make the most sense for their business objectives. AI ultimately can be best optimized by enterprises with strong data management capabilities. Data, in all its myriad forms, is what ultimately teaches and enables cognitive capabilities. Without access to vast data sets, AI will remain narrow, thus carrying out only specific tasks and failing to generate the volume and velocity to achieve C-suite mandates.

To move toward aligning vision and execution, it's critical to have a clear view of your ultimate end-state for AI and intelligent automation. AI, for all its significant benefits, does not directly provide the business outcome. Instead, it is an enabler to help enterprises achieve their goals effectively, productively and intelligently, where the digital organization can work in real-time to cater to its clients, rapidly support their needs and help anticipate changes to the business environment to stay ahead of the market. It's where talent, intelligent software, processes and infrastructure come together as one integrated unit, with one set of unified business outcomes tied to delighting customers.

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Key questions to consider

- » Do you have C-suite commitment on required specific business outcomes?
- » Have you identified the skills needed for success and where you can get them?
- » Will you work with an experienced partner to help speed progress?

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Notes and sources

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