



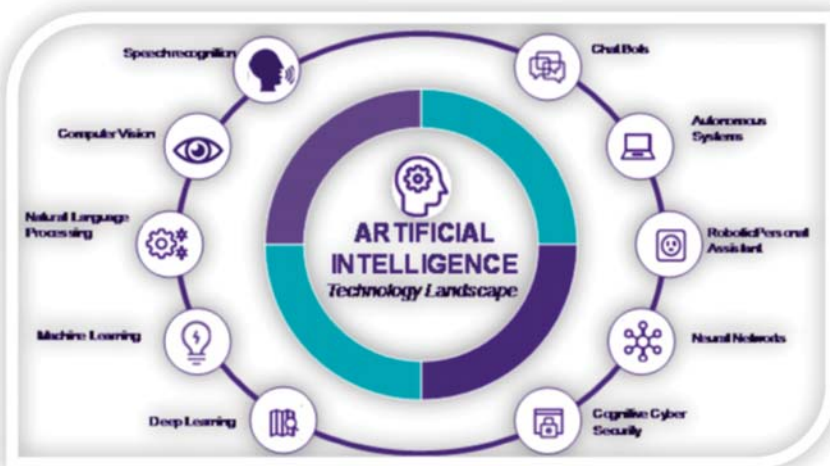
A Director's Guide to Artificial Intelligence (AI)

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Hype or the new reality?

There is much hype and buzz around the words “Artificial Intelligence” or “AI” but beyond the noise and hype is there a deeply rooted reality which we cannot afford to ignore?

So what is Artificial Intelligence: simply put, AI is the ability of computer systems to perform intelligent tasks commonly associated with human intelligence. For achieving this, computers must first overcome a number of computing challenges such as speech recognition, the ability to understand normally spoken sentences (natural language processing), the ability to recognise objects from images (image recognition), the ability to learn from experiences and data (machine learning) and the ability to draw inferences (cognitive computing). These things which come naturally for human beings are indeed very complex challenges for computers. However, all this is changing with the rapid advances in technology.



Today's consumers demand that every experience provides immediate value on multiple levels. They require a competitive, friendly, quick and personalized user experience. They swear allegiance to no brand and are ready to jump ship to the first competitor that can offer them what they want, when they need it, and at the level of service they feel they deserve.

Tech giants, such as Amazon or Netflix, have set the bar high for intuitive personalized user experiences. Many industries are rethinking their own customer service approach to match this new

standard and meet the expectations of modern consumers.

It is increasingly evident that the future success or failure of businesses will hinge on their ability to provide personalized user experiences. Businesses are amassing rich customer data in order to optimize customer experience and differentiate from their competition. There is a shift in mind-set, from focussing on what they want to offer, to prioritizing what creates immediate value for the customer. In addition, they are willing to allocate the necessary resources to drive this goal. To this purpose, they use artificial intelligence (AI) to achieve brand differentiation.

AI will have a transformative impact on several industries although the impact will be felt sooner for some than the others. Paving the way for AI, many customer facing businesses, especially those with electronic service channels, have started embracing machine learning (ML) and natural language processing (NLP) to reduce labour costs and increase productivity. In the near future, AI is touted to revolutionize service offerings by becoming an omnipotent artificial brain behind the scenes to improve customer interaction and increase personalization.

Applications of AI

While AI is still in its infancy, the technology has the potential to transform customer experience by enhancing the interaction with the customer, rather than replacing humans with bots. Here are some insights regarding applications of AI (and of other related technologies) that can create immediate value for the customer:

1. Simplify processes

Allow customers to execute simple transactions through user-friendly tools that leverage their data. In this way, they will see how access to their data creates direct, personal value.

2. Offer customers personalization and optimization of experience based on live data.

AI can replace annoying surveys through real-time data mining and by interacting with customers in real time, eliminating the need for the survey feedback loop. As a transformative technology, AI empowers automated assistants that provide updated, real-time customer interactions.

3. Offer recommendations to motivate customer behaviour.

Savvy businesses can partner with other organizations to establish

trusted relationships and create a holistic experience for their customers. This includes using customer data to help them achieve their short- and long-term goals. For example, a financial institution can create tools to help customers: 1) keep on top of day-to-day financial tasks to answer immediate questions quickly (e.g. a financial calendar that can keep track of a customer's account balance until payday and send bill payment reminders, etc.); and 2) think through long-term financial planning. This can create transformative opportunities to cross-sell and up-sell to the customer.

4. Use AI or related technologies (e.g. ML, NLP) to enhance rather than replace human interaction.

AI can enhance the customer experience even when it is not customer facing. For example, call centers can follow 2 paths for interaction with customers: (1) they can be fully automated and chatbots can simply answer calls; or (2) they can use a mix of human and artificial intelligence, where chatbots can aid human call center representatives interact with customers effectively. So far, the second has proved more effective than the first.

Turnover and training are well-known challenges for call centers. Customers can feel dissatisfied with a call center representative that does not have an answer to their query; the representative can feel that, despite his best effort, he does not have access to the right information to answer the query. AI can help with this issue, not necessarily by replacing representatives and human interaction, but rather by facilitating speed and access to information to help representatives create an outstanding customer experience. This can be particularly effective with new hires that have to get up to speed fast.

5. Get the right channel. Go where the customer is likely to be.

Customers expect personal experiences that make their lives easier. For example, customers spend most of their time on their cell phones and have started using virtual voice-enabled assistance more and more. Businesses need to meet the customers where they are to offer convenience and ease of use. This insight should guide investment in new tools. Conversational assistants/virtual assistants can be used for day-to-day transactions and allow customers to explore additional products and services, policies and other information.

6. Think through infrastructure challenges that limit the customer experience.

When planning investments in AI tools, businesses need to think proactively about current infrastructure challenges and future infrastructure advances. Delivering differentiation through technology depends on the capacity of the technological infrastructure to support the tool. At the high end of the technology infrastructure spectrum, 5G capabilities may enable the Internet of things (IoT) new data sources. Are organizations prepared to collect and leverage this new data? At the low end, many Indian citizens barely connect to broadband because of the areas in which they live. Are they untapped customers? What tools/channels work for them, as they are dependent on the limited availability of infrastructure now and in the future?

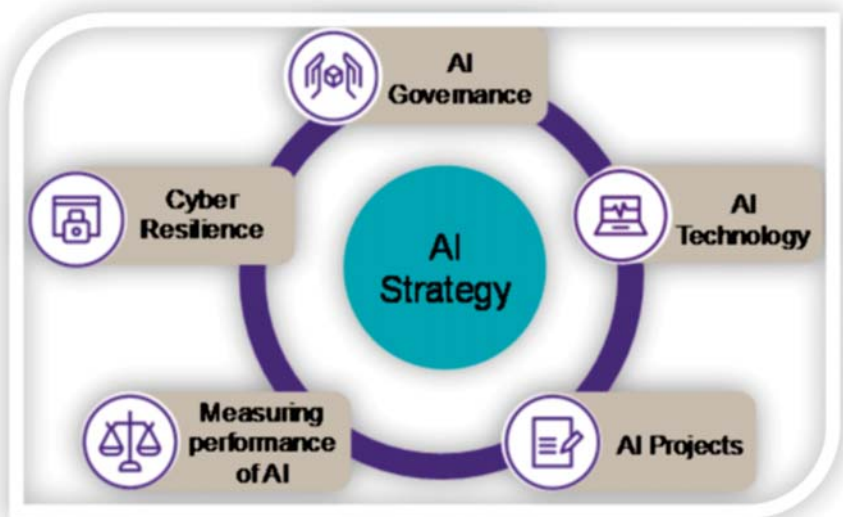
7. The Back Office.

Another key area where AI is transforming the way we do business is with the back office. While businesses are increasingly leveraging AI for transactional tasks, they're finding that AI is actually reorienting their back-office hiring strategies. In many cases, instead of using AI as a means of reducing headcount the focus has been on finding and retaining additional, highly skilled personnel to work in areas where customer interactions cannot be automated or where more critical thinking and problem-solving is commanded. Also, managing and maintaining these AI systems requires expertise.

While it is tempting to think about the impact of AI in reducing manpower, office space, and related costs, it is prudent to also think on the increasing skill profile of the future workforce, talent retention and related costs.

Building Blocks for AI adoption

Now that we have looked at some of the key application areas of AI in



an organizational context, let us address some of the building blocks for an intelligent organizational approach to AI.

§ AI Strategy

Each organization's AI strategy will be unique based on its approach to capitalizing on the opportunities that AI provides. The AI strategy is often an obvious extension of the organization's overall digital or big data strategy. Organizations with a well developed and implemented digital / big-data strategy are one step ahead in AI.

§ AI Governance

As per the AI Auditing framework published by the Institute of Internal Auditors, "AI governance refers to the structures, processes, and procedures implemented to direct, manage, and monitor the AI activities of the organization in pursuit of achieving the organization's objectives".

The level of formality and structure for an organization's AI governance will vary based on the specific characteristics of that organization. Regardless of the specific approach, however, AI governance establishes accountability and oversight, helps to ensure that those responsible have the necessary skills and expertise to effectively monitor AI, and helps to ensure the organization's values are reflected in its AI activities. This last point should not be overlooked or given little attention.

AI activities must result in decisions and actions that are in line with the ethical, social, and legal responsibilities of the organization

§ AI Technology

To unlock the transformative potential of AI, it is imperative to build a solid technological foundation that will make use of new customer data in meaningful ways. At this critical point, the question arises as to how to evaluate and select the appropriate tools and how to find a manageable pace of adoption. This reinforces the importance of the people strategy in relation to AI. It is imperative that organizations think early about whether they have the right skills and on how to bridge gaps.

From a technology perspective, adequate focus needs to be on data architecture, infrastructure, and overall data quality. The completeness, accuracy, and reliability of the data on which AI algorithms are built are critical. Unfortunately, it is not unusual for organizations to have a poorly defined, incoherent structure to their data. Often, systems do not communicate with each other or do so through complicated add-ons or customizations. How this data is brought together, synthesized, and validated is crucial.

§ AI Projects

While it is very important to have a medium- to a long-term vision for AI, it is only in pieces that the vision can be realized. Unlike a big bang approach, an organization cannot achieve AI transformation overnight. Different applications and use cases are likely to require different tools and algorithms. For example, a chatbot for a service provider's IT helpdesk, cannot be directly ported to handle the same company's customer call center.

It is important to breakdown the overall AI strategy into much smaller projects which are easier to manage, quicker to deliver and be appropriately resourced.

With AI, businesses need to be open to discovering new and, possibly, unexpected business needs. The spirit of innovation embraces the understanding that not all initiatives will pan out. Sometimes pilots are technological successes with few immediate benefits. However, a well-executed AI strategy can ensure that every experiment is a stepping stone.

§ Measuring Performance of AI

As organizations integrate AI into their activities, performance metrics should be defined to tie AI activities to business objectives and clearly illustrate whether AI is effectively supporting the achievement of those objectives. Management must actively monitor the performance of its AI activities.

§ Reemphasizing Cyber Resilience

Cybersecurity threats continue to define our times. With the adoption and evolution of advanced technologies such as AI, organizations need to reemphasize cyber resilience capabilities. Cyber resilience includes being able to prevent, respond to and recover from cyber-attacks. Cyber resilience need not be perceived as a separate initiative for AI but must form part of the overall information security and cyber risk management framework of the organization.

Closing thoughts

While a handful of organizations in the technology, automotive, manufacturing, financial services, and utilities industries seem to be leading the AI revolution, it is hard to imagine an organization that will not be impacted by AI. Just like web-presence, electronic commerce and cloud computing were a focus of select industries in their early stages, ultimately all organizations adopted aspects of


these technologies.

As champions of Shareholder's trust, Directors must help organizations visualize and prepare towards what may be the next digital frontier – artificial intelligence. To meet these challenges, Directors can leverage strategy, technology, and operations expertise that may reside within or outside the organization. Ultimately, an organization's success with AI requires a systematic and disciplined approach fostered by a culture of innovation.


If your organization is not working on an AI strategy, rest assured that your competitors are.

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