NAVIGATE YOUR DIGITAL TRANSFORMATION BY SCALING WITH AI

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AI and automation: Here and now

Artificial intelligence (AI) has gradually established itself as a dependable technology for many organizations because of its real-world applications. As a unique and transformative technology, AI is redefining how humans work and is elevating efficiency exponentially.

With its ability to drill down into data, spot trends, devise solutions, and execute the right actions, AI is helping solve problems across industries and functions. Consumer application companies are quick to notice these capabilities and have been capitalizing on the power of AI to deliver highly satisfying customer experiences and transform businesses.

The current state of AI adoption

Globally, many companies have invested in AI technologies and initiatives, and have become early adopters of this disruptive technology. For instance, manufacturers are using robotics and AI to improve efficiency in warehouse management by automating assembly lines and optimizing the movement of physical goods. Companies are also using AI-based solutions to revamp surveillance activities, thereby enabling informed decision-making and strategic actions.

As the applications around AI continue to evolve, businesses are finding new ways to reap greater value. For instance, enterprise-wide process automation eliminates monotonous tasks and enhances efficiency, while AI-enabled IT operations (or AIOps) can manage complex IT environments with greater ease. With conversational AI, organizations are enhancing employee and customer experience through intelligent and timely communication. Another application is AI-based anomaly detection for preventive and predictive maintenance so companies can analyze, detect and predict issues, thereby saving time, effort and money on downtime. Clearly, a combination of different AI technologies is the way forward to empower companies to boost performance to levels that were previously unimaginable.

But what is preventing them from unleashing and benefiting from the power of AI?

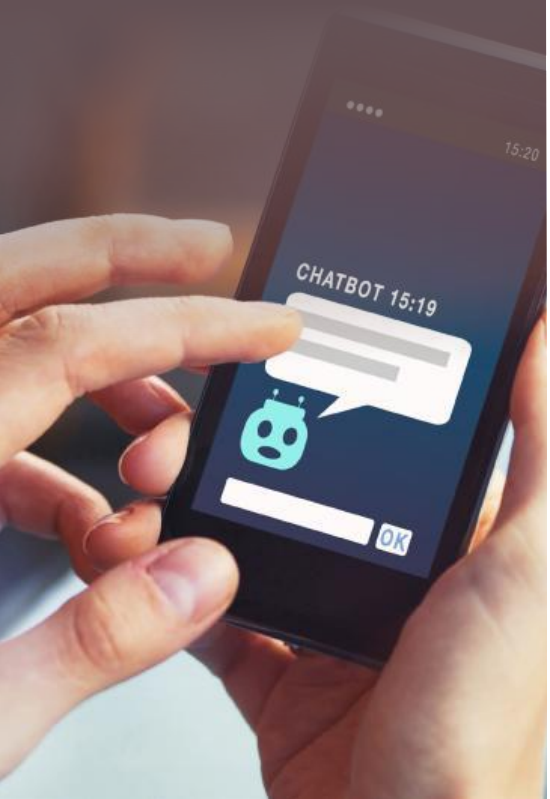
Infosys helped a leading US fashion brand spot server trends proactively through an AI-based predictive model that analyzes server traffic and detects, anomalies, thereby enhancing the customer experience

Text-mining and natural language processing (NLP) helped Infosys improve the R&D knowledge extraction and management process for an Agrochemical company by automating indexing, extraction and de-duplication processes across millions of documents, in over 60 languages

The key challenge faced by companies today is how they can scale AI adoption across the enterprise, and do it quickly.

A conversational AI chatbot designed by Infosys uses machine learning to improve HR response time for employees of a New Zealand telecom company

For many Financial Services firms and Finance and Accounting functions; digital assistants enabled by us are delighting end customers with conversational, human like behavior, helping through payments and related processing, provide real time responses to queries and support 24X7



Nowadays, most AI enterprise applications are used to replace manually-intensive and tedious tasks. This basic approach, however, does not reflect the full potential of AI. To win in the future, companies must leverage AI to address issues that are inaccessible or impossible for humans to address, thereby amplifying the value derived from AI. The time is ripe for businesses to take notice of the power of AI technologies and act quickly to adopt them across the enterprise.

To begin with, organizations must focus on answering three key questions:

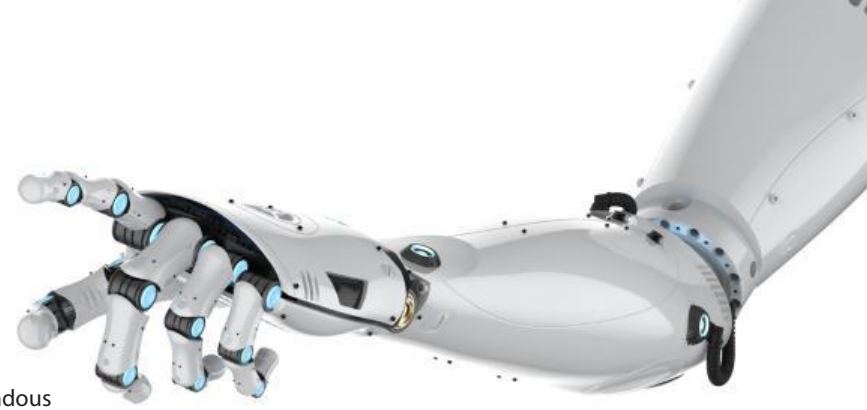
1. How can we radically reduce the time to execute a process?
2. How do we retrieve information or insights in real-time?
3. How can we make functions self-heal?

The answers to these questions will put enterprises on the right path to transformation by helping them proactively discover customer needs, respond effectively, design the right experiences, and successfully solve customer problems.

> AI techniques must take on problems that cannot be solved by humans, to yield path-breaking outcomes and therefore play a disruptive role in our lives. Else we are diluting the power of AI tremendously.

Balakrishna D. R.
SVP and Service Offering Head - AI and Automation Services, Infosys

Enterprise-wide innovation with AI at your fingertips



Let us take a quick look at the new technologies that have tremendous implications for the evolution of AI:

Cloud is driving affordability and eliminates the challenges of computing power, storage and accessibility

The **Internet-of-Things (IoT)** promotes easy access to data residing in physical systems

Big data, when coupled with AI, enhances analytics and delivers powerful outcomes

The convergence of cloud, IoT and big data can help companies solve real business problems, as seen in the example of an Australian bank. More significantly, AI has the potential to align technology with business for better outcomes. The key success driver here is to look outwards, beyond IT and the internal organization, and involve the entire ecosystem of customers, competitors and start-ups, and leverage broad industry and technology trends. With such a holistic view, enterprises can get timely insights into how they can adapt to ecosystem changes and proactively differentiate themselves for sustained business success.

Infosys helped a leading Australian bank create new revenue stream by automating trade finance for its client and benefit from a futuristic supply chain by combining four disruptive technologies – IoT, AI, data analytics, and blockchain

Challenges in scaling AI adoption

An Infosys study found that while 79% of enterprises have experimented with AI technologies, it is still in a nascent stage for several industries. From our diverse industry experience, here are the three main reasons why large-scale adoption of AI technologies remains a challenge for enterprises:

- **A narrow view of automation** – Most companies tend to view AI and automation as separate technologies. However, greater value can be derived when these are viewed as complementary technologies on a single continuum that infuse synergies into the entire spectrum of organizational activities. This will not only transform existing business models but scale AI across the enterprise.

- **Failing to follow analysis with action** – Simply analyzing data for insights without relevant and actionable follow-up does not deliver value. The scope of AI and automation should rise beyond mere robotic process automation or business process management to understand how employees work, converse and make decisions that impact business performance.
- **Complex IT environments** – For AI to work well, it needs to interact with various enterprise systems to fetch the right data, determine the right patterns, and execute the right actions. However, large enterprises have complex IT systems that use different technologies for various processes. This complex IT landscape makes it difficult for AI systems to seamlessly interact with different systems and processes.

Besides these, the other challenges include poor understanding and limited approaches to AI, scarcity of talent, inadequate skillsets, and absence of the right partner to guide enterprises through their AI journeys.

A telecommunication giant wanted to break data silos and bring AI closer to all employees who needed it the most in their day-to-day decision making.

Taking innovation to next level, Infosys built a centralized machine learning system of systems that is now helping client with real-time volume forecasting, has reduced model selection process time by ~50%, provided a marketplace for best trained models and ensured effective collaboration; democratizing and making AI accessible to all employees.

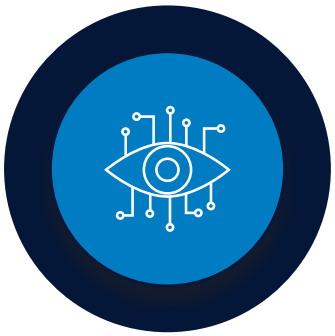
Navigate your next for AI success: Choose the right transformation partner

Embarking on an AI transformation journey is challenging, particularly when it comes to choosing the right tools and platforms and hiring the right talent. Without a nuanced understanding of the intricacies of technology as well as its applications, transformation initiatives tend to falter during the planning and execution phases.

Thus, enterprises need the right transformation partner to guide them on their AI journey through a carefully planned and rigorously executed strategy that leverages best practices so as to realize value faster.

Scaling AI adoption within an enterprise: The right approach

Infosys believes that achieving **three zeroes**, i.e. zero distance to information and insights, zero disruption to business operations and zero latency to business processes; can help enterprises drive widespread adoption of AI for greater business success. These can be achieved with:

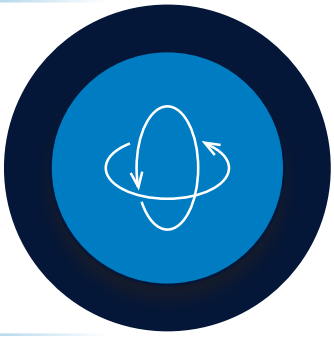


Integrated approach to problem solving and finding

Having understood the interdependence between AI and automation early on, Infosys is a pioneer among IT service providers with its integrated AI and automation service offering. This holistic approach has helped clients achieve *zero disruption to business operations* by first identifying, and then solving both IT and business problems to deliver significant transformation. We have also set up the largest Center of Excellence (CoE) (cutting across consulting, technology and operations) that helps drive automation programs through a hub and spoke model. The three pillars of our CoE are AI and automation as the technology lever, lean methods as the process lever and design thinking as the innovation lever. These three pillars help us re-reimagine business and processes to create innovative business models.

Driving actionable insights across the continuum

Infosys offers a complete portfolio of services from consulting to implementation backed by proven expertise and experience in business process management (BPM), automation, data analytics, AI, and packaged solutions. We have built a steady pipeline of skilled professionals and continue to develop talent in niche AI technologies. Further, we have established deep alliances with relevant product partners, academia, and industry groups, in addition to strategic acquisitions and tie-ups with start-ups. These capabilities help clients achieve *zero distance to information* so they can leverage analytics for actionable insights.



Solutions to accelerate adoption

Infosys was one of the earlier movers to develop its own AI platform - Infosys NIA, to predict challenges and equip clients with a competitive advantage. With a wide array of ready accelerators and cognitive solutions today to meet diverse business and IT requirements, we enable *zero latency to business processes*.

Infosys has also embarked on scaling its own AI and automation journey by implementing AI-enabled HR processes internally and building smart campuses to enhance our employee experience. These projects have been a rich source of learning and expertise and we bring these advantages to clients across client engagements and implementations.

Infosys provides the above differentiators to streamline AI adoption initiatives complemented by hands-on experience from internal and external transformation programs. As a partner, we play three key roles for our clients – technology creators, system integrators, and executors to scale enterprise initiatives.

New age and cognitive solutions can help generate additional revenue. For instance, our Email Workbench solution can be used for marketing by cross selling and upselling products by sending targeted messages to users, while responds to queries.

Infosys Wingspan (known as Lex internally), the new age app that can be accessed anytime, anywhere and on any device for a seamless learning experience, has enabled learning on the go for all

Conclusion

For AI to live up to its promise, enterprises should first reframe how they view the technology. AI and automation should be considered as a continuum and not treated as separate technologies. Further, enterprises must ensure that there is a mechanism to follow data analysis with relevant actions. Achieving this requires a sophisticated understanding of business context, AI technologies and other emerging technologies along with strong implementation expertise. Enterprises will benefit from aligning with a reliable and established partner to steer their AI adoption initiatives in the right direction. This will ensure successful and value-driving AI programs that deliver smarter gains for business as well as IT, thereby helping sustain the competitive edge.

Scale with AI. To scale AI adoption within your enterprise at speed, to transform and adapt to the future, connect with us at aiautomation@infosys.com

Authors

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Sanchit leads the worldwide sales, marketing and alliances for AI and Automation Services for Infosys and partners with customers to help them chart their roadmap across the automation spectrum leveraging everything from robotic automation to cognitive services. Sanchit has worked across US, Australia, UK and India having played roles cutting across sales, consulting and delivery. Given his breadth of experience Sanchit's strength lies in his ability to drive effective problem finding, leverage cutting edge technology and harness the strength of extended teams to deliver a solution. He holds a Master of Business Administration from the Indian Institute of Management, Lucknow and a bachelor's degree in Electronics Engineering from National Institute of Technology, Bhopal. He can be reached at Sanchit_Mullick01@infosys.com.

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Hasit is the Global Head of AI & Automation Service Delivery at Infosys. He is a technocrat with a wide variety of experience in running the business in niche technology areas such as Artificial Intelligence, Automation, Cloud, IOT and more, and has also contributed in building the product business for Infosys. He has strong expertise in technology, client delivery, product management, product engineering and building business units up from scratch. Hasit has helped Infosys build Geo specific units and markets including Japan, Hong Kong and India, and has played a key role in Intellectual property (IP) acquisitions. He can be reached at Hasittrivedi@infosys.com.

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