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2024 GENERATIVE AI AND INTELLIGENT AUTOMATION TRENDS REPORT

Operational excellence leaders are increasingly leveraging generative AI and a platform-based approach to digital transformation. Find out how this is helping businesses thrive in times of uncertainty

INSIDE:

- Economic uncertainty and the need for operational excellence
- Balancing generative AI with safety and ethics
- The platform-based approach to generative AI and intelligent automation

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Introduction: Global challenges and the state of digital transformation

In an era defined by rapid technological evolution, digital transformation has emerged as a pivotal force reshaping the landscape of business and industry. As organizations across the globe strive to adapt to the ever-changing digital ecosystem, the journey towards digital transformation has become a strategic imperative for survival and sustained success.

The world of digital transformation has witnessed a remarkable metamorphosis driven by innovative technologies, shifting consumer behaviors, and a competitive landscape. Over the past few years, businesses have navigated groundbreaking advancements such as artificial intelligence (AI), cloud computing, the Internet of Things (IoT), and data analytics. These technologies have not only disrupted traditional business models but have also presented new opportunities for growth, efficiency and customer engagement. From the advent of automation and smart technologies to integrating machine learning algorithms in decision-making processes, this transformational journey has been nothing short of revolutionary.

This report, produced by *PEX Network* in association with Edgeverve, provides a comprehensive overview of the current state of digital transformation, offering an understanding of the challenges organizations face. With insights from *PEX Network's* advisory board members and senior business leaders at Maersk, the LEGO Group, Heineken and more, the report assesses the opportunities generative AI presents and how leaders are balancing advanced technologies with tried and tested business frameworks.

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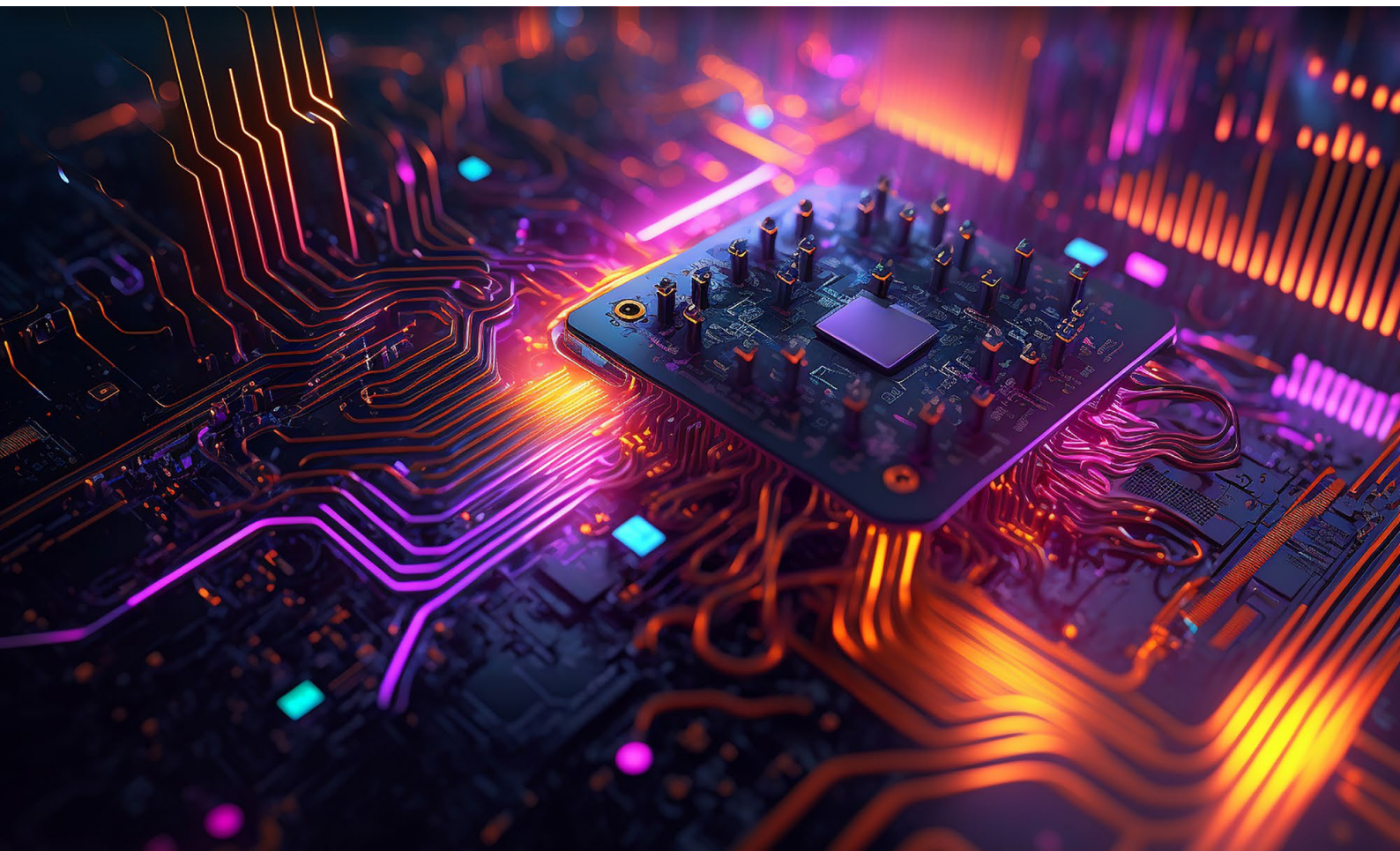
Economic uncertainty and the need for operational excellence

By January 2023, numerous economists had predicted an imminent recession for the year ahead. As a result, many organizations took proactive measures to brace for its impact and mitigate the potential adverse effects by cutting down costs, adopting automation solutions, and restructuring their operations to be more agile and adaptable.

However, the 2023 recession never came to fruition, and the odds of serious economic decline in 2024 are low, yet anxiety lingers. The IMF predicts that world economic growth will slow from 3.5 percent in 2022 to 3 percent this year, decreasing further to 2.9 percent in 2024.

Compounding these concerns are geopolitical issues such as the war in Ukraine, the Israel-Hamas conflict, the 2024 US elections and the proliferation of weaponized AI. These threats, as existential as they may seem, are pushing organizations to bolster their operations by reducing waste, increasing organizational agility and expanding automation. Meanwhile, there is a general hesitancy to invest in new technologies.

"As global uncertainty persists, cost-cutting measures are being implemented and will continue until early next year, at the very least," Joe Craughan, X disruptor, formerly of Novartis, explains. "There needs to be a compelling business case for absolutely everything. Unless a new technology is a game-changer, companies will be reluctant to invest."

Vineet Mehra, general manager and senior platform product owner at Maersk, concurs and adds, "CTIOs are limiting new technology investments, and instead asking product owners to focus on stabilizing and optimizing existing products and reaping those benefits".

These attitudes were reflected in *PEX Network's Global State of Process Excellence 2024 report*, as 26 percent of respondents cited "cost/budget limitations" as their top challenge for 2024 and 50 percent said they expected operational excellence budgets to decline or remain flat.
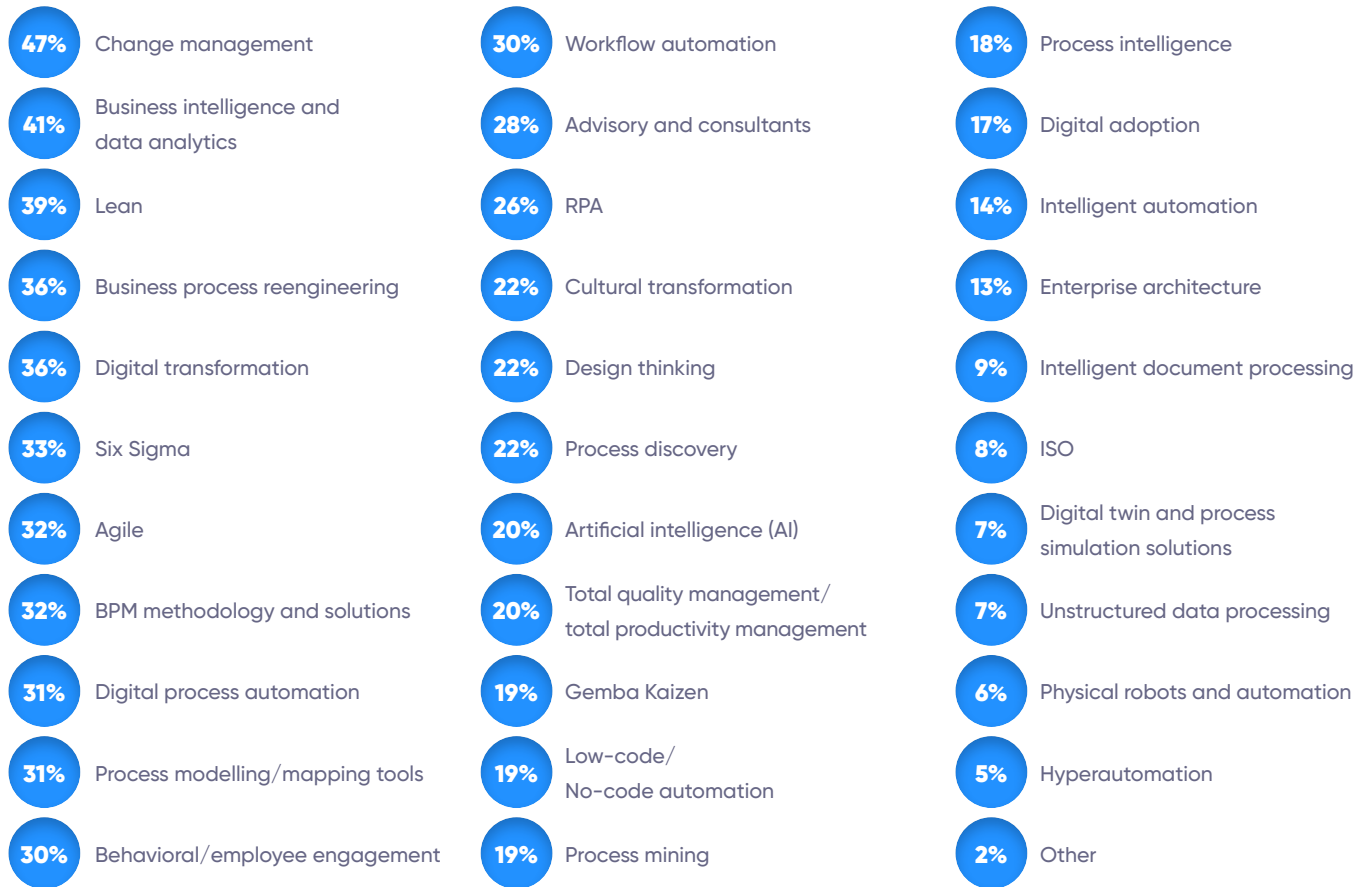
As the pressure to accelerate, innovate and reduce operational costs grows, operational excellence has become increasingly vital to organizational success. To prepare for the potentially bumpy road ahead, organizations are deepening their investments into traditional operational excellence methodologies such as Lean (39 percent), Six Sigma (33 percent) and business process management (BPM, at 32 percent).

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>
> **Ramana Rao**
> **Newell Brands**

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Economic uncertainty and the need for operational excellence

Which methodologies and solutions are you currently using to support your OPEX projects?

47%	Change management	**30%**	Workflow automation	**18%**	Process intelligence
41%	Business intelligence and data analytics	**28%**	Advisory and consultants	**17%**	Digital adoption
39%	Lean	**26%**	RPA	**14%**	Intelligent automation
36%	Business process reengineering	**22%**	Cultural transformation	**13%**	Enterprise architecture
36%	Digital transformation	**22%**	Design thinking	**9%**	Intelligent document processing
33%	Six Sigma	**22%**	Process discovery	**8%**	ISO
32%	Agile	**20%**	Artificial intelligence (AI)	**7%**	Digital twin and process simulation solutions
32%	BPM methodology and solutions	**20%**	Total quality management/ total productivity management	**7%**	Unstructured data processing
31%	Digital process automation	**19%**	Gemba Kaizen	**6%**	Physical robots and automation
31%	Process modelling/mapping tools	**19%**	Low-code/ No-code automation	**5%**	Hyperautomation
30%	Behavioral/employee engagement	**19%**	Process mining	**2%**	Other

Source: *PEX Network*'s 2024 global state-of-the-industry survey

These frameworks provide a starting point before the deployment of new processes or technologies, such as automation. Ramana Rao, director of GBS intelligent automation at Newell Brands, says: "I strongly believe in classic methodologies such as Kaizen and Six Sigma because, before you automate a process, you have to understand it. To do this, we manually perform a Kaizen workshop for three or four days during which we work closely with the business to document, simplify and standardize the process. Once the process is optimized, then we might consider automating it or adding a technology layer to it."

This renewed interest in classic continuous improvement techniques will also increase the demand for process excellence talent. "If you have talent, if you have the culture, you can keep driving and keep getting your cost benefits," Peter Evans, former director of service and performance management for shared services at the LEGO Group, tells us. "The companies that will thrive in this environment are the ones that successfully link purpose to impact to keep employees engaged and motivated."

Even though economic uncertainty may establish new opportunities for operational excellence leadership, it is more critical than ever to ensure these initiatives are in complete strategic alignment with larger business objectives. "Don't make the mistake of overlooking strategic alignment as you pursue quick savings and improvements," Evans advises.

As we will see in the next section, though organizations may be returning to basics, they are not abandoning innovation entirely, especially when it comes to business process automation and generative AI.

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Balancing generative AI with safety and ethics

The past year has demonstrated that the transformational potential of generative AI, with its remarkable ability to analyze vast datasets and autonomously generate valuable, human-like insights and content, is too significant to ignore.

"Generative AI is not just another technology passing through the hype cycle, its impact on society will be on a par with the internet, the smartphone and social media," explains Mr. N. Shashidhar, vice president and global platform head, EdgeVerve. "It will reshape business and fundamentally redefine human machine relationships."

According to the Forrester Consulting Thought Leadership Study for EdgeVerve Connected Enterprise report, 67 percent of IT decision makers believe AI will play a significant role in their digital journey going forward, particularly in helping uncover new revenue streams and increasing employee productivity. In addition, a recent report by McKinsey estimates that generative AI could automate 25 percent of workplace tasks and, when combined with other enabling technologies such as workflow automation, could potentially automate "work activities that absorb 60-70 percent of employees' time today."

Recent research by *PEX Network* found that operational excellence leaders are eager to start experimenting with generative AI but only a small percentage, about 19 percent, have successfully operationalized at least one project.

Numerous members of *PEX Network*'s advisory board have launched AI projects such as customer service chatbots, employee self-service, intelligent document processing, regulated document production and knowledge management. Though a number of these projects have delivered promising results, many organizations are still hesitant to invest in large-scale AI initiatives.

"In order to capitalize on generative AI, you have to make sure these tools are unbiased, ethical, trustworthy and explainable. At this point in time, everyone should be focused on governance to mitigate these risks as AI development continues to advance."

Lyudmila Todorovska
Heineken

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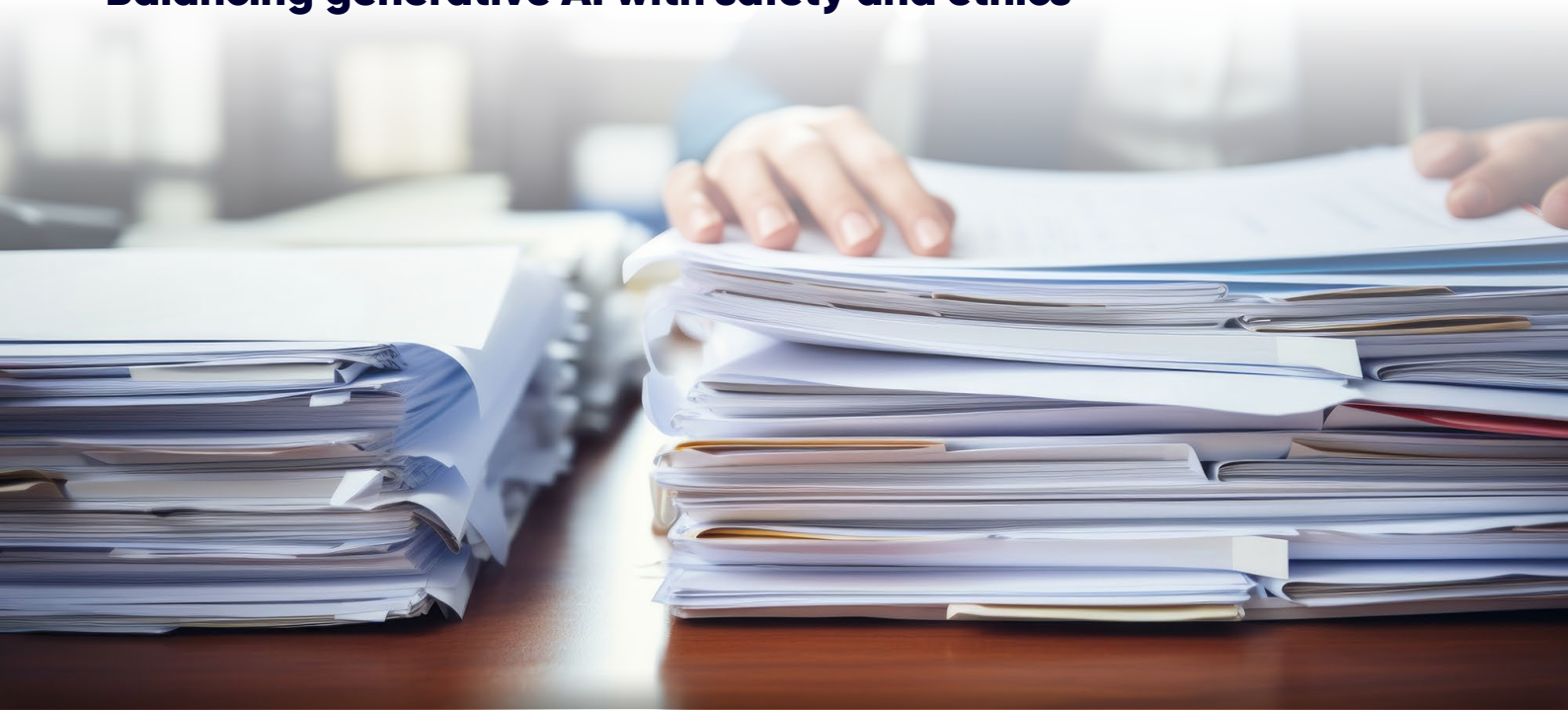
There are multiple reasons for this reluctance: To start, many of our advisory board members expressed deep concern regarding the various regulatory, financial, cyber security and ethical risks associated with AI. They are not alone – a March 2023 survey of more than 500 senior IT leaders by Salesforce found that while 57 percent believe generative AI is a "game changer," 59 percent believe generative AI outputs are inaccurate, and 63 percent say there is bias in generative AI outputs, such as misinformation and hate speech. A further 71 percent agree generative AI would increase their carbon footprint through increased IT energy use.

"In order to capitalize on generative AI, you have to make sure these tools are unbiased, ethical, trustworthy and explainable," explains Lyudmila Todorovska, global head of digital & technology (HR, legal, corporate affairs) at Heineken. "At this point in time, everyone should be focused on governance to mitigate these risks as AI development continues to advance."

Mr. N. Shashidhar, vice president and global platform head at EdgeVerve, explains that: "Business leaders should tailor AI models to their enterprise context by seamlessly integrating them into their data and systems, thereby optimizing the models' ability to perform specific tasks."

In addition, many worry that AI might hurt their work life, and on society at large. A 2023 Pew Research survey of 11,000 respondents found that 52 percent feel more concerned than excited about the increased use of artificial intelligence, while only 10 percent say they feel more excited. A different survey conducted by the Verge around the same time found that what worried people the most was job losses (63 percent), privacy threats (68 percent) and government and corporate misuse (67 percent).

Both surveys uncovered that the less a person knew about AI, the more fearful they were of it. "Most people have heard of generative AI, but few really understand how it could benefit them in their work lives," Todorovska says. "It is vital to communicate how generative AI can benefit them by helping them work more efficiently. One way of doing this is to hold prompt engineering workshops and other interactive training so they can experience the benefits for themselves."

Proving the benefits of AI and tools like ChatGPT is ultimately what will encourage buy-in from staff, leaders and other stakeholders. Another solution is the creation of private, in-house AI models and servers. As these AI models are trained on a company's data and used only on domain-specific tasks, they are secure by design. The next section illustrates the benefits of a platform-based approach to automation and generative AI.

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The platform-based approach to generative AI and intelligent automation

Resistance to change and fear are not the only barriers to AI adoption. Most companies also face numerous technical and financial obstacles. Another major roadblock, according to *PEX Network*'s advisory board, is legacy systems. In fact, according to a recent survey by Rackspace, 80 percent of the 1,000+ IT decision-makers surveyed agreed that failure to modernize legacy applications and data solutions will prevent them from fully leveraging AI.

IT modernization, though essential, often entails lengthy timelines and significant financial investments, sometimes running into millions of dollars. Recognizing the constraints faced by numerous companies in terms of time and budget, Mr. N. Shashidhar proposes that enterprises should leverage platforms to construct a transformative overlay atop their siloed core systems. He suggests sidestepping the complexities of integration and, instead, advocates for the creation of a connective, next-generation AI-powered technology overlay.

This strategic shift provides a more agile and cost-effective solution to address the challenges associated with traditional IT modernization. Mr. N. Shashidhar says: "Such an approach has a double value proposition. One, it will enable you to start your AI and process-level automation journey immediately. Two, it is going to help you extract more value from your past investments in your digital core and dramatically reduce costs in the long-term."

In fact, as recounted in the *Forrester Consulting Thought Leadership Study for EdgeVerve Connected Enterprise report*, 70 percent of surveyed decision-makers believe that adopting a platform-based strategy that unifies and orchestrates business and technology will help to drive their digital transformation initiatives.

As a director of a high-tech enterprise in the US commented in the Forrester study: "These marriages that we have with our platform-based vendors have been very, very critical and a key differentiator due to the active collaborations, active support, and engagement that we have with them across the usage lifecycle. From a learning and development perspective, they've also been very influential in training our internal teams."

Platform-based technology seamlessly integrates existing systems, empowering businesses to embrace cutting-edge capabilities, boost operational efficiency, and discover new avenues for growth and innovation, all without disrupting their foundational systems. Other benefits include:

Efficiencies at scale:

Redefine operational efficiency by digitizing and automating complex business processes, enabling enterprises to achieve a high degree of straight-through processing.

Amplify human potential:

Drive a significant increase in productivity, while enabling enterprises to engage in a more human-centric way with their customers, employees, and partners. This is achieved by equipping users with actionable insights and decision-support tools that inform and enhance every interaction.

Connected ecosystem:

Empowers enterprises to forge a connected ecosystem, maximizing value for end customers through strategic collaboration and integrated journeys.

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The platform-based approach to generative AI and intelligent automation

"We are going into an era where, instead of looking at machines as a tool, machines are becoming teammates. Instead of asking what the machine can do for us, the question will be what can the machine be for us?"

Mr. N. Shashidhar
EdgeVerve

Overall, the platform-based approach enables enterprises to get the maximum value from their digital core by connecting people, processes, data and technology silos. "Our vision at EdgeVerve, what we call the connected enterprise, is to create a state where humans are involved in designing the processes and machines operate," Mr. N. Shashidhar explains. "Instead of people processing data from multi-systems and applications, as they do now, AI is capable of executing those processes far more accurately and faster."

Mr. N. Shashidhar illustrates the significance of continuous adaptation in the realm of loan processing. He emphasizes that the ever-evolving demographics, shifting consumer needs, dynamic risk models, and changing business environments necessitate ongoing human intervention in the design process of AI models. This intervention ensures that the models remain up-to-date, empowering humans to concentrate on leveraging their creative, cognitive, and intellectual skills.

Moreover, according to Mr. N. Shashidhar, AI advancements are facilitating more natural language interactions between humans and machines, leading to a notable increase in adoption. This, in turn, is fostering diversity within the AI development process.

"Diversity of thought is essential to long-term success because innovation always happens at the edges," Mr. N. Shashidhar explains, "Eliminating technology as a barrier and fostering collaboration among creative geniuses, business leaders, and engineers, one can collectively innovate and co-create transformative solutions, thus unlocking the complete potential of human capabilities."

Mr. N. Shashidhar also emphasizes that platform-based models increase the importance of human intelligence. "Traditionally, human behaviour used to adapt to a new technology. Here is one technology which is adapting to humans, and the interface is becoming more and more conversational," says Shashidhar. "It is becoming more and more human, which means we are going into an era where, instead of looking at machines as a tool, machines are becoming teammates. Instead of asking what the machine can do for us, the question will be what can the machine be for us?"

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About PolarisEdge

PolarisEdge, an AI-powered platform that bridges silos in people, processes, data, and technology for enterprises, amplifying the value of their existing digital core investments. PolarisEdge, which is part of Infosys Topaz, an AI-first set of services, solutions and platforms using generative AI technologies, strategically responds to the evolving needs of modern enterprises. Visit https://edgeverve.com/polarisedge to know more.

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About EdgeVerve

EdgeVerve Systems Limited, a wholly-owned subsidiary of Infosys, is a global leader in developing digital platforms, assisting clients to unlock unlimited possibilities in their digital transformation journey. Our purpose is to inspire enterprises with the power of digital platforms, thereby enabling our clients to innovate on business models, drive game-changing efficiency and amplify human potential. Our platforms portfolio consists of AI-powered platform (PolarisEdge), Automation(AssistEdge), Document AI (XtractEdge), and Supply Chain (TradeEdge) which help inspire global enterprises to discover & automate processes, digitize & structure unstructured data and unlock the power of the network by integrating value chain partners. EdgeVerve, with a deep-rooted entrepreneurial culture, our innovations are helping global corporations across financial services, insurance, retail, consumer & packaged goods, life sciences, manufacturing telecom and utilities, and more. Visit www.edgeverve.com to know more.

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Elizabeth Mixson is the former Managing Editor of PEX Network where she oversaw the creation of written, video and multimedia content. From 2020-2022, she served as the Editor of the Intelligent Automation Network and the AI, Data & Analytics Network. Before that she managed the online content creation team for IQPC's commercial events portfolio based in NYC.

Mr. N. Shashidhar, Global Platform Head & Vice President at EdgeVerve, is an software industry stalwart with 24 years of experience and spearheads the Strategy & Operations at Edgeverve. He has been instrumental in transformation of EdgeVerve through continuous sharpening of EdgeVerve portfolio strategy.