Top Strategic Technology Trends for 2024: Democratized Generative AI

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Initiatives: Artificial Intelligence; Digital Future

Generative AI will drive a democratized workplace, empowering employees with knowledge and skills to achieve their potential. IT leaders must harness its value to increase productivity, cut costs and create growth opportunities, while also mitigating its significant risks.

Overview

Opportunities

The democratization of generative AI (GenAI) opens up immense opportunities, such as:

- Rapid ideation and faster time to market for products: GenAl can democratize access to information making it easy to find, enabling contextual search and transforming information retrieval to be conversational, impacting both customers and employee experiences. In addition, creating new, unique outputs across a range of modalities (i.e., text, images, code, audio, video and even a new protein) is a transformative opportunity. Machine creativity is in the early stages and can be harnessed in many ways to speed the development of new products and build competitive differentiation.
- Improved efficiency and increased business productivity: GenAl applications will accelerate manual or repetitive tasks, such as writing emails, coding or summarizing large documents. They will also enable more efficient ways of achieving high-value tasks, making it easier for employees to get proficient with new tasks through personalized Al assistants.
- Hyperpersonalization: By combining organizational data with GenAl models, organizations can create personalized content and information tailored to a specific audience. Examples include the use of chatbots for personalized customer experiences or product recommendations.

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Recommendations

- Create a prioritized matrix of GenAl use cases in your industry vertical based on technical feasibility and tangible business value. Identify business functions and tasks with immediate impact and savings. Outline a time frame for piloting, deployment and production across these use cases.
- Quantify the business value of generative Al using both technical and business metrics, and measure it early and in a consistent manner.
- Employ a change management approach that prioritizes employee training and wellbeing. Do so by equipping employees with the knowledge to use GenAl tools safely and confidently, while showing them that these tools will help them automate routine tasks.
- Implement governance to enable democratization in a responsible way ensure that there are checks and balances for content accuracy, authenticity and guardrails to prevent intended or unintended consequences of the GenAl applications, with humans in the loop.

Strategic Planning Assumption

By 2026, more than 80% of enterprises will have used generative AI APIs, models and/or deployed GenAI-enabled applications in production environments, up from less than 5% in 2023.

What You Need to Know

This research is part of Gartner's Top Strategic Technology Trends for 2024.

Download the Executive Guide to Democratized Generative Al.

GenerativeAl (GenAl) will revolutionize the way businesses operate, ushering in a new era of productivity, efficiency and innovation. It will have a range of uses, from automating routine tasks to generating creative solutions for complex problems. GenAl has the potential to transform the nature of work, enabling businesses to drive growth and achieve success more quickly. As such, IT leaders must recognize the transformative power of GenAl and begin to embrace its potential, while simultaneously crafting policies to mitigate its risks.

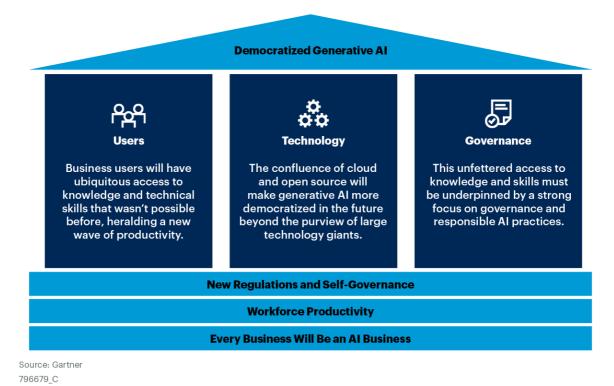
The rapid adoption of GenAl will significantly democratize knowledge and skills in the enterprise. Large language models enable enterprises to connect their workers with knowledge in a conversational style with rich semantic understanding. Employees with access will benefit from this vast amount of knowledge, both internally and externally to the company.

In many organizations, digital transformation efforts have stalled because of the distant relationship between "the business" and "IT." GenAl could enable a "low code and no code" approach to product development, simplifying product customization and creation by an increasing number of business technologists and citizen developers within the organization. Early-stage products, such as ChatGPT and GitHub CoPilot, show a glimpse of potential possibilities, allowing users to interact in natural language, and then have the Al tool generate and auto-complete that instruction with code.

While GenAl is democratizing skills and knowledge across workers, access to GenAl models and applications is also being democratized. The latter is the result of the confluence of two key forces — cloud computing and open source. A huge number of GenAl models, tools and applications are being made available as APIs in the public cloud. This has made it easier for developers to build applications using these APIs without having to build or operate their own models. Closed-source models have previously dominated the GenAl landscape, but a vibrant ecosystem is building around open-source models. Open-source models give enterprises more flexible deployment options, better control over security and privacy, and customization opportunities for steering these models to align with their use cases. Figure 1 illustrates the democratization of GenAl.

Figure 1: Democratized Generative Al

Democratized Generative AI



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Profile: Democratized Generative Al

Description

Generative AI is the ability of AI models to create completely original variations of content (including images, video, music, speech and text). GenAI applications (i.e., ChatGPT) have the potential to automate a broad range of tasks, thereby boosting productivity, reducing costs and offering new opportunities for growth. GenAI will democratize information and skills across a broad set of roles and business functions, making it one of the most disruptive trends of this decade.

Why Trending

The immense potential and viral adoption of ChatGPT has catapulted GenAl to become a top priority for IT leaders. A Gartner Webinar poll in April 2023 found that 19% of enterprise IT leaders were piloting GenAl or had already deployed it, while 70% were exploring its potential. Enterprises' enthusiasm stems from the uniqueness of GenAl as a technology trend that can massively improve organizational efficiency (reduce costs), while also offering huge potential for revenue growth.

Democratization of Generative AI can bring the following benefits:

- Decentralized AI: This will enable business experts the freedom to quickly
 experiment and deliver products with embedded AI capabilities. This can lead to
 responding to market changes faster or even reinventing business models to build
 competitive moats in varied market segments.
- Inclusivity and empowerment: A large pool of business workers can now directly interface with AI technologies using natural language, rather than special tools that query AI models. Increasingly, employees will leverage the power of multimodal AI to generate marketing content, analytics reports or other dashboards without the help of data experts.
- Creativity: By leveraging the power of machine creativity and by automating mundane, rote tasks, Generative AI can herald better creativity, collaboration and brainstorming within enterprises.
- Usability: ChatGPT has forever reset the expectations of conversational experiences.
 GenAl systems will be inherently more usable and intuitive, often mimicking or being embedded into the current workflow of the users.

Organizations are investing heavily in GenAl. Large technology companies, including Microsoft (and OpenAl), Google, Meta, Amazon Web Services, Salesforce and IBM — and heavily funded start-ups, such as Cohere, Anthropic and Hugging Face — are making massive investments, seeking to democratize GenAl's adoption.

Although GenAl models are a great technical advancement, they still require frequent human intervention to steer them. Gartner expects that more autonomous agents will evolve that can execute complex business tasks, but require limited prompting. This will be a huge driver of adoption beyond the technical teams that possess the know-how of prompt engineering.

Implications

Democratization of Generative AI will automate business processes and enhance workforce productivity. For example:

- PwC is a leading professional services firm that provides assurance, advisory and tax services. PwC announced a partnership with Harvey to bring the power of Generative AI to its legal professionals. PwC's network of more than 4,000 legal professionals will use Generative AI to deliver human-led and technology-enabled legal solutions in a range of areas, including contract analysis, regulatory compliance, claims management, due diligence, and broader legal advisory and legal consulting services. PwC is also working with Harvey to develop and train its own proprietary AI models to create customized products and services for its own use cases, and for clients across legal business solutions. The ultimate goal is to generate insights and recommendations based on large volumes of data, delivering richer information that will enable PwC professionals to identify solutions faster, but with humans in the loop.
- CarMax is one of the largest used car retailers in the United States. CarMax wanted to democratize access to knowledge for its customers using GenAl, so they could find the most useful information related to their search. Thanks to GenAl models, potential buyers can now see summaries of customer reviews for every make, model and year of vehicle that CarMax sells (about 5,000 combinations in a vast inventory of approximately 45,000 cars). The summaries provided easy-to-read takeaways from real customer reviews. CarMax has also used the models to create new website content that allows customers to easily see what's new for each version of a car, helping them decide whether new features are worth splurging on. The summaries and other model-generated content have improved customer engagement and search engine optimization, while the time saved has enabled CarMax's content creators to focus on deeper research, long-form articles and more creative tasks.

We believe, in the long run, that:

- GenAl will revolutionize many industries by enabling new use cases and improving existing processes.
- GenAl will have a disruptive impact across functional areas, reinventing the way work is done.
- GenAl will force organizations to reevaluate business risks to protect their brand, and in light of growing industry and national regulations.
- Democratization of GenAl is a massive industry shift that will increase the gap between efficient and inefficient organizations, and will lead to new start-ups that will disrupt industries.

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Actions

- Create a tiger team to examine the potential applications of GenAl within your organization.
- Create a risk mitigation strategy in consultation with Legal, Compliance, HR,
 Marketing and IT stakeholders to ensure safe and robust deployments.
- Decide on build versus buy based on costs, complexity, security and privacy needs, and the need for factual accuracy.
- Set up a sandbox environment for rapid experimentation and robust scaling of GenAl projects.
- This is a fast-moving space invest in ongoing training programs to upskill and accelerate the democratization of GenAl.

About Gartner's Top Strategic Technology Trends for 2024

This trend is one of our Top Strategic Technology Trends for 2024. These are the trends we consider most relevant and impactful. Our trends fall into three main themes:

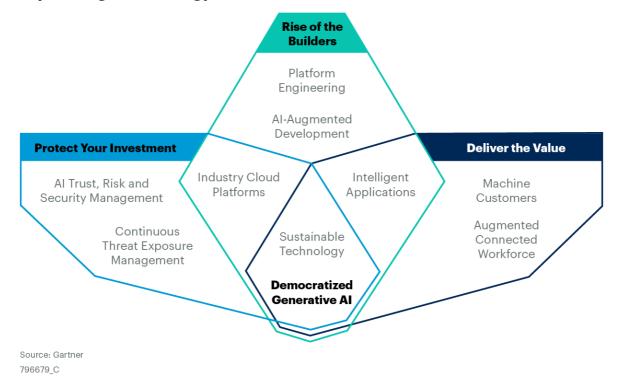
- Protect your investment. Preserve your investments and secure the benefits from past and future strategic technology decisions to make them durable.
- Rise of the builders. Unleash creative powers by using the appropriate technology for the appropriate functions.
- Deliver the value. Refine and accelerate value optimization, built on top of durable operational excellence.

These technology trends don't exist in isolation — they interconnect (see Figure 2) and several fall into more than one theme. The trends' potential importance for your organization differs by organizational maturity, but also by industry, business needs and previously devised strategic plans.

Work with other executives to evaluate the impacts and benefits of our trends. This will enable you to determine which single trends — or strategic combination — will have the most significant impact on your organization, and the ecosystem in which it operates. Examine the trends' potential relative to your organization's specific situation, factor them into your strategic planning for the next few years, and adjust your business models and operations appropriately.

Figure 2: Top Strategic Technology Trends for 2024: Democratized Generative Al

Top Strategic Technology Trends for 2024: Democratized Generative AI



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Evidence

Recommended by the Author

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Board Brief on Generative Al

How to Pilot Generative Al

How to Choose an Approach for Deploying Generative Al

Innovation Guide for Generative Al Technologies

¹ Glean Al Streamlines Insurance Provider Thimble's AP Workflow, Glean.ai.

² Build: Azure OpenAl Service Helps Customers Accelerate Innovation With Large Al Models; Microsoft Expands Availability, Microsoft.

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