Top 3 Generative AI Trends Impacting IT Services

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Initiatives: Technology Market Essentials

Generative AI restructures how work is done for rich content such as text and graphics, which will lead to major shifts in what IT services are asked to do and how they will accomplish it. Service providers must pursue what GenAI enables and experiment with pricing and operating shifts.

Additional Perspectives

 Invest Implications: Top 3 Generative AI Trends Impacting IT Services (29 November 2023)

Overview

Impacts

- Software coding is changing thanks to large language model (LLM)-powered applications: Hyperbolic notions like "the end of legacy code" and "paying off all the technical debt" are capturing organizations' attention.
- Documenting and presenting strategic thinking is faster and easier but no less complex: Generative AI (GenAI) offers new means of accelerating creative or artful work of any kind — including engineering — to achieve greater productivity.
- Handling interactions requires far less "people time": Business process services that deliver arbitrage for people's time of all kinds will take new shapes with more automated interactions and transactions.

Recommendations

Technology and service providers should:

Skills in GenAl-powered coding using publicly available open-source and commercial models and coding assistants; develop GenAl-powered coding ability based on proprietary code libraries; develop services in which they facilitate their clients' managing and developing their own codebases.

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- Introduce new consulting service offerings to target higher-value business process service offerings related to governance of AI, such as data governance, validation of compliance with law and regulation, and integration with existing systems.
- Repackage and reprice business process outsourcing offerings that are currently priced based on time or staff availability. Initial changes will include clients' expectation that the same service will be available for lower cost, but successful firms will create new services that were previously impossible due to scale.

Strategic Planning Assumptions

- By 2027, 90% of service providers will use generative AI for software development services, including code compiling and optimization, automated debugging and automated quality assurance (QA) testing, up from 26% today.
- Generative AI will play a role in 70% of text- and data-heavy tasks by 2025, up from less than 10% in 2023.By 2026, customer service functions that implement agentaugmented solutions will improve contact center efficiency by 30%.

Introduction

Service providers are navigating profound changes in their markets due to the emergence of GenAl applications and models. Application-related services, business process outsourcing, and key consulting service categories are all affected. Service providers must defend their existing revenue against new and existing competitors as they develop new offerings and reprice or otherwise change existing capabilities. Customers will quiz their service providers about existing services — especially business process outsourcing (BPO) and legacy application conversion — and seek new offerings that will allow them to test and then operationalize GenAl benefits.

Figure 1 highlights three major trends in IT services being driven by generative Al developments.

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Figure 1: Top Three Generative AI Trends Impacting IT Services

Top Three Generative AI Trends Impacting IT Services



By 2027, 90% of service providers will use generative AI for software development services, including code compiling and optimization, automated debugging and automated QA testing, up from 26% today.

- LLM-powered applications have been delivering value for annotating, documenting and explaining code, but new models are promising for automating code conversion and application integration.
- IT services organizations that depend on such work must reframe their offerings.



Generative AI will play a role in 70% of text- and dataheavy tasks by 2025, up from less than 10% in 2023.

- Generative AI offers new means of accelerating creative or artful work of any kind — including engineering — to achieve greater productivity.
- Consulting for application development, management and other technology or business consulting must address these opportunities.



By 2026, customer service functions that implement agent-augmented solutions will improve contact center efficiency by 30%.

- Services providers who offer clients the ability to respond to the need for personnel resources, especially to manage customer or worker interactions, will be affected as generative Al speeds scripting or communication.
- Initially, the improved quality of such interactions will result in higher pricing, but competitive pressure will quickly induce a race back to commodity pricing.

Source: Gartner 798986_C

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Impacts and Recommendations

1. GenAl-Powered Applications Are Remaking Coding

IT services providers will need to reframe their GenAl-powered application offerings (see Table 1).

Table 1: GenAl-Powered Applications Are Remaking Coding

(Enlarged table in Appendix)

Market Impacts

- To take advantage of GenAl automation, organizations expect to accelerate conversion of their legacy systems to modern codebases, either within evolving languages or across languages. Among respondents to a poll in Gartner's webinar Beyond the Hype: Enterprise Impact of ChatGPT and Generative AI, 45% said they had increased investment in AI since ChatGPT (see Getting Started With Generative AI in Your Application Architecture).
- Integration of applications using resilient systems supported by GenAI is developing as a possible new direction in digital architectures. By 2025, 30% of enterprises will have implemented an AI-augmented development and testing strategy, up from 5% in 2021.
- Risks of performance and quality in generated code, as well as model performance, are not yet fully understood. A Peer Insights survey conducted in April showed that more than 70% of respondents not using GenAl in software engineering were concerned about result inaccuracy or security or both.
- Intellectual property (IP) issues familiar in digital content will also affect code assets until legal and regulatory processes are sorted out. Existing copyright laws have significant implications for the use of GenAI, although many countries and regions are establishing policies and defining new laws and regulations for AI-assisted creative works and IP protection. See Quick Answer: How to Protect IP When Using GenAI for Software Engineering

Recommendations

- Invest in a ssets that systematize application updating or conversion with an eye to specialization by industry.
- Pilot Al-driven integration in receptive clients as a means of experimenting and determining how these approaches to connectivity will evolve.
- Invest in foundation models using data that you and clients own in order to insulate yourself and clients from unpredictable shifts in code IP rights.
- Test continuously to discover particular weaknesses or strengths in foundation model-produced code.

Source: Gartner (November 2023)

2. Documenting and Presenting Strategic Thinking Is Faster and Easier but No Less Complex

Generative AI offers new means of accelerating creative or artful work of any kind — including engineering — to achieve greater productivity. Strategy, technology and business consulting to address the new challenges related to these exercises will focus on governance. Data privacy and sensitivity must be safeguarded; existing applications must be integrated to; laws and regulations must be complied with (and are in flux). Consulting for application development, management and other technology or business consulting must address these opportunities. Also, knowledge management and reusable assets have long been key institutional skills for IT services firms; GenAI makes it easier to employ libraries of prior IP to win proposals and complete deliverables. Documenting and presenting strategic thinking is faster and easier with generative AI (see Table 2).

Table 2: Documenting and Presenting Strategic Thinking Is Faster and Easier but No Less Complex

Market Impacts	Recommendations
 Workers will be more productive, and as a result, IT services firms will be able to pursue more opportunities, which in turn will make consulting bids more competitive. More than 80% of workers would like AI to help them "create a project plan." GenAI will speed communication design such as writing, graphics and narrative development, freeing up time of high-value employees and enabling service providers to better align personnel to maximize opportunities. The number of business technologists is growing, introducing new risks in data privacy, compliance, and system integration that will change the demand for service offerings. Today, on average, 41% of employees in an organization are business technologists — that is, employees who report outside of IT departments and create technology or analytics capabilities for internal or external business use. 	 Invest in tuning models or developing new ones that will deliver in the voice and tone of the firm's brand. Budget for the staff necessary to support the processes that create unstructured content. Also budget for human-in-the-loop staff to validate and preserve it. Introduce new offerings that focus on implementing generative AI swiftly and deliberately in ways that allow for enterprise scale and measured value.

Source: Gartner (November 2023)

3. Handling Interactions Requires Far Less "People Time"

Business process services that deliver arbitrage for people's time of all kinds will take new shapes with more automated interactions and transactions. Pricing and formats for such services will be reshaped in an effort to compete effectively or preserve existing revenue, but the resulting changes will be profound. Business processes in which IT services organizations have offered their clients the ability to respond to the need for personnel resources, especially to manage customer or worker interactions, will be affected as generative AI speeds scripting or communication. Initially, the improved quality of such interactions will result in higher pricing, but competitive pressure will quickly induce a race back to commodity pricing.

Table 3: Handling Interactions Requires Far Less "People Time"

Market Impacts Recommendations Markets for offerings in application Repackage and reprice BPO and management and BPO will be application management offerings, or draft incentives to defend revenue substantially restructured as organizations respond with changes against software or low-cost in their budgets and expected service replacements. value. Aim to put more employees in business Processes outsourced to IT services and application technology consulting organizations will take new shapes, to stay ahead of potential diminished including more automated lower-level revenue, because labor arbitrage will interactions and more combined not be as lucrative as it once was. higher-level interactions. New kinds of interactions, including fully automated and personalized prescriptive contracts, will gain prominence.

Source: Gartner (November 2023)

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Table 2: Documenting and Presenting Strategic Thinking Is Faster and Easier but No Less Complex

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Recommendations

- Invest in tuning models or developing new ones that will deliver in the voice and tone of the firm's brand.
- Budget for the staff necessary to support the processes that create unstructured content. Also budget for human-in-the-loop staff to validate and preserve it.
- Introduce new offerings that focus on implementing generative AI swiftly and deliberately in ways that allow for enterprise scale and measured value.

Source: Gartner (November 2023)

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Table 3: Handling Interactions Requires Far Less "People Time"

Market Impacts Recommendations

- Markets for offerings in application management and BPO will be substantially restructured as organizations respond with changes in their budgets and expected service value.
- Processes outsourced to IT services organizations will take new shapes, including more automated lower-level interactions and more combined higher-level interactions. New kinds of interactions, including fully automated and personalized prescriptive contracts, will gain prominence.
- Repackage and reprice BPO and application management offerings, or draft incentives to defend revenue against software or low-cost replacements.
- Aim to put more employees in business and application technology consulting to stay ahead of potential diminished revenue, because labor arbitrage will not be as lucrative as it once was.

Source: Gartner (November 2023)

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