Generative AI Surveys

Overview

Barriers, Benefits, Use Cases

Open-ended Insights

Peer Data & Insights

Additional Insights
In a few weeks' time, we completed 7 business function specific surveys with a total response of 833 leaders, across 3 continents, representing 21 industries about their impressions of generative AI programs, and the associated opportunities, risks, and use cases.

While it remains early days for many respondents, their feedback gives significant insight into the potential future attitudes of about and applications of these tools.
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Additional Insights
Barriers to Generative AI Adoption

Top of mind risks for IT & INFOSEC LEADERS

58% Potential for vulnerabilities or leaked secrets in AI-generated code
57% Potential for generating incorrect or biased outputs

Biggest challenges cited by SOFTWARE ENGINEERING LEADERS using Generative AI

66% Undesirable results
43% Lack of corporate governance policies
38% Pushback from leadership

Reasons shared by SOFTWARE ENGINEERING respondents whose departments have not adopted Generative AI

76% Security
71% Inaccurate or biased results
Challenges of D&A LEADERS who have AI-generated synthetic data

- 46% Inherited bias in synthetic data
- 51% Not having enough real-world source data
- 41% Inaccuracy caused by statistical noise
- 34% Inaccuracy caused by statistical noise

The top selected adoption barriers among SALES LEADERS

- 51% Lack of widespread adoption
- 49% Integrations with existing technology
- 38% Availability and quality of data
### Barriers to Generative AI Adoption

#### Generative AI adoption barriers for MARKETING LEADERS
- **55%** Skills Gaps
- **42%** Integrations with existing technology
- **38%** Unforeseen security threats

#### Top adoption barriers submitted by SUPPLY CHAIN LEADERS
- **58%** Integrations with existing technology – or a lack thereof
- **57%** Unforeseen security threats
Identifying Generative AI’s Benefits

Tech leaders predict positive bottom-line impacts from large language models (LLMs) and generative AI apps; slightly fewer expect top-line impacts.

IT & INFOSEC LEADERS expect the following for Generative AI:
- 66% Positive impact on the bottom-line financial performance
- 59% Improve top-line financial performance

D&A LEADERS realized benefits of synthetic data:
- 60% Improved model accuracy
- 56% Mitigated data privacy concerns
- 45% Improved model efficiency
Identifying Generative AI’s Benefits

SOFTWARE ENGINEERING LEADERS believe that

70% Generative AI will have a somewhat positive impact on software engineering

23% It will have a very positive impact

SUPPLY CHAIN LEADERS identify as expected benefits

- Improved agility: 49%
- Improved productivity: 48%
- Improved cybersecurity: 48%
SALES LEADERS believe that Generative AI would allow them to completely replace a person, with 37% believing this benefit.

MARKETING LEADERS top selected benefits include:
- Improved speed to market: 57%
- Improved productivity: 43%
- Improved ROI: 38%
IT & INFOSEC LEADERS cite the following top use cases:

- **Marketing and advertising**: 53%
- **Research and development**: 30%
- **Data analysis and prediction**: 56%
- **Operations and logistics**: 34%
- **Fraud detection & cybersecurity**: 32%
Pinpointing Use Cases

SOFTWARE ENGINEERING LEADERS are excited about using Generative AI in
- Code generation: 61%
- AI-assisted pair programming: 55%
- Technical document generation: 48%

SUPPLY CHAIN LEADERS are planning to put Generative AI to use for
- Internal knowledge base enhancement: 48%
- Problem resolution management: 44%
- Generating interactive predictive models: 42%
Pinpointing Use Cases

MARKETING LEADERS selected

- 62% Content production
- 52% Generating ad copy
- 38% Generating product copy

SALES LEADERS most common use cases for Generative AI

- 48% Create sales enablement materials
- 44% Create L&D or training content
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"We are behind on embracing generative AI for security purposes, which is regrettable, because, predictably, malicious actors are not as behind."

**DIRECTOR**
Arts and Entertainment Industry | 10,000+ Employees

"I think there is a general nervousness about jumping in too soon here. I think in the next 6-12 months we will all get a better understanding of what and how we can leverage this to our advantage as businesses and as society."

**C-SUITE**
Consumer Goods Industry | 1,000 – 5,000 Employees

"We see the huge benefits of generative AI but are taking baby steps with Chat GPT."

**DIRECTOR**
Professional Services Industry | 5,000 – 10,000 Employees
“IT Leaders are saying…”

“Definitely using but cautiously and primarily for data analysis and business planning and forecasting at this point. Not using clinically.”

C-SUITE
Healthcare Industry | 1,000 – 5,000 Employees

“Generative AI has to be seriously considered despite its limitations and regulatory challenges, especially for people in high-regulated industries.”

C-SUITE
Finance Industry | 1,000 – 5,000 Employees
InfoSec Leaders are saying…

“This is a new area and all our decisions are being questioned constantly.”

C-SUITE
Professional Services Industry | 1,000 – 5,000 Employees

“Loss of internal IP is rising to the top of our list as the number 1 risk for ChatGPT use within our organization with the potential for developers to feed it source code to help improve quality.”

VICE PRESIDENT
Natural Resource Extraction Industry | 10,000+ Employees

“It's not 100% fool-proof and still benefits from human intervention.”

DIRECTOR
Healthcare Industry | < 1,000 Employees
InfoSec Leaders are saying…

“We are currently assessing compliance aspects [and] static analysis tool capabilities to continuously scan AI generated code, and also forming guidelines for aware and ethical use of generative AI tools by engineers.”

C-SUITE
Finance Industry | <1,000 Employees

“There is still no transparency about data models are training on, so the risk associated with bias, and privacy is very difficult to understand and estimate.”

C-SUITE
Finance Industry | <1,000 Employees
Software Engineering Leaders are saying…

“Low-level software engineering jobs will be replaced by AI.”

DIRECTOR
Telecommunication Services Industry | 5,000 – 10,000 Employees

“It will create more volume of new code than we have resources to keep in check.”

DIRECTOR
Manufacturing Industry | 1,000 – 5,000 Employees

“[Generative AI will] increase productivity to a large extent, [and] create a lot of jobs for software engineers. The department will take a more strategic tack. More jobs will be created to develop a new set of human work tasks — many of them of higher value.”

DIRECTOR
Telecommunication Services Industry | 10,000+ Employees
“[Generative AI] is going to change the overall TAT [turnaround time] for producing quality code. [It] may eradicate a lot of jobs especially at the junior software developer level.”

VICE PRESIDENT
Software Industry | 1,000 – 5,000 Employees

“[Generative AI] will help speed up coding — with human intervention after the main work is done by the AI.”

DIRECTOR
Natural Resource Extraction Industry | 10,000+ Employees
D&A Leaders are saying…

“AI generated synthetic data is quite sensitive and needs to be handled securely.”

MANAGER
Finance Industry | 5,000 – 10,000 Employees

“AI generated [techniques have] a high level of myopic bias, selecting the right vendor for data remains a challenge.”

MANAGER
Finance Industry | 1,000 – 5,000 Employees

“It is in [an] early stage and will be tough to adopt across [the] entire organization and also ROI cannot be [easily] calculated. Regulatory issues are a major concern.”

C-SUITE
Finance Industry | 10,000+ Employees
D&A Leaders are saying...

“There has to be [an] integration of Human Resource insights along with AI generated synthetic data to improve the utmost effectiveness.”

MANAGER
Professional Services Industry | 5,000 – 10,000 Employees

“IT's difficult to reduce bias while also improving accuracy for healthcare data. So far the only way is to tokenize real-world data to reduce risk while preserving data accuracy and quality.”

DIRECTOR
Finance Industry | 10,000+ Employees
“Ethical implications are humongous while working with AI/ML in supply chain industry. The AI disruptions leading to elimination of supply chain manpower from various critical stages of business is posing issue for businesses and professionals globally.”

DIRECTOR
Education Services | APAC | 501 – 1,000 Employees

“Generative AI can be employed to design and manage warehouse operations more effectively, optimizing space utilization, labor allocation, and material handling processes. By automating these tasks, logistics companies can significantly reduce their operational costs and improve overall efficiency.”

MANAGER
Manufacturing | APAC | 10,001+ Employees

“[Generative AI] will be a part of the supply chain technology ecosystem, and will be used to predict outcomes, prevent issues from occurring, and prescribe actions.”

DIRECTOR
Consumer Goods | North America | 10,001+ Employees

“[Generative AI has] very bright future for accurate modelling of tasks and find fastest route possible and inventory replenishment.”

VICE PRESIDENT
Consumer Goods | APAC | 51 – 200 Employees
"Once generative AI is integrated with most marketing technology systems, I foresee prompt based images, videos and copy being widespread. Imagine creating multivariate tests using multiple assets in multiple languages with multiple landing pages."

MARKETING VP
Hospitality | APAC | <1,000 Employees

"[Marketing teams] should be using generative AI in all aspects of marketing. Content, digital ad copies, SEO suggestions, brand video and infographics."

MARKETING DIRECTOR
Finance & Banking | APAC | 1,001 – 5,000 Employees

"By utilizing the power of generative AI, marketing teams can enhance customer experience and boost sales by creating tailored content, evaluating customer feedback, implementing precise pricing strategies, launching focused marketing campaigns, and automating customer service processes."

C-SUITE
Finance Industry | 10,000+ Employees
Sales Leaders are saying…

"Don't rely on it completely so that your customers will easily find out that you have used generative AI tool."

SALES MANAGER
Professional Services Industry | APAC | 1,001 – 5,000 Employees

"It can serve as a useful outline, however it lacks innovative thinking. It reports from past data."

SALES DIRECTOR
Telecommunication Services | North America | 1,001 - 5,000 Employees
Generative AI Surveys

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IT – ChatGPT policies under development, risk convos make it to the boardroom

79% Currently don’t have an acceptable use policy in place for ChatGPT

32% In the process of developing one

69% Use ChatGPT for business purposes

21% Use paid subscription

The potential risks of generative AI have become a board-level conversation at some organizations

66% of respondents say their executive leadership team has discussed the potential risks of generative AI.

Have the potential risks of generative AI been discussed by your executive leadership team?

- 66% Yes
- 30% No
- 5% Not sure

n = 200
Note: May not add up to 100% due to rounding

Among respondents who reported that their organizations have a board of directors (n = 168), 40% say the board has addressed generative AI risk

Have the potential risks of generative AI been discussed by your board of directors?*

- 48% Yes
- 30% No
- 5% Not sure

n = 168
*Question omits those who responded "Not applicable; we don’t have a board of directors"
Additional Results: IT

Generative AI adoption levels vary; the top use case among adopters is data analysis and prediction.

While most respondents (60%) report that their organizations use generative AI solutions beyond ChatGPT for specific applications, only 12% say they use the technology extensively, while 48% use it to a limited extent.

- 48% Yes, to a limited extent
- 28% No, but we plan to this year
- 13% No, we are not currently and we have no plans to do so this year

Note: May not add up to 100% due to rounding
*Respondents who answered "Not sure" were eliminated from the survey.

Tech leaders who say their organizations currently use generative AI beyond ChatGPT (n=119) cited data analysis and prediction (56%) and marketing and advertising (53%) as the top use cases.

About one-third say they are using it for operations and logistics (34%), research and development (32%), or fraud detection and cybersecurity (30%).

In what ways is your organization currently using generative AI? Select all that apply.

- Fraud detection and cybersecurity 30%
- Product development 22%
- Human resources 9%
- Finance operations 5%
- Other* 2%

*n = 119

Question shown only to leaders who answered “yes, extensively” or “yes, to a limited extent” to the question “Is your organization currently employing generative AI beyond ChatGPT for any specific applications?”

*Other: Development, Testing

Source: Generative AI and ChatGPT: Adoption and Usage
InfoSec — AI working groups, data guidelines and humans in the loop for risk mitigation

44% Their organization has or will establish new working groups to manage generative AI security and risks.

61% use or plan to use data guidelines

55% associated with generative AI tools or foundational models

Undesirable outputs and insecure code are among the top-of-the-mind risks concerning most respondents in terms of generative AI at their organizations.

When it comes to deficiencies in security and risk management for generative AI or foundational models, surveyed leaders noted gaps in team/skills (63%), transparency in third-party generative AI tools (51%), and consensus on related guidelines or policies (47%).

Are you experiencing gaps or deficiencies in any of these areas when it comes to security/risk management for generative AI tools or foundational models? Select all that apply.

- Team/skills: 63%
- Transparency in third-party generative AI tools: 51%
- Consensus on generative AI guidelines/policies: 47%
- Data governance: 43%
- Regulatory compliance (i.e., production-first mentality): 36%
- Prioritization of risk/security: 35%

Industry best practices 29% | Transparency in foundational models 21% | Collaboration across stakeholder groups 17% | Not sure 2% | None of these 1% | Other 0%

Source: Generative AI Security and Risk Management Strategies
Additional Results: InfoSec

Which of the following have been or will be established at your organization to manage generative AI security and risks? Select all that apply.

- New working groups for generative AI: 44%
- Responsible AI champion(s): 29%
- AI risk management function: 29%
- Automation CoE: 27%
- New dedicated roles for generative AI: 25%
- AI center of excellence (CoE): 25%
- Partnering with AI academics or organizations (e.g., Partnership on AI): 25%
- Data and analytics CoE: 24%
- AI ethics board: 14%
- Partnering with AI startups: 12%
- Not sure: 7%
- None of these: 4%
- Other (Too early to say): 1%

n = 150

What strategies are you using or planning to use to mitigate risks associated with the use of generative AI tools or foundational models? Select all that apply.

- Data guidelines (e.g., using synthetic data, prohibiting use of identifiable data): 61%
- Humans in the loop to mitigate/identify undesirable outputs: 55%
- Awareness training on responsible AI practices: 44%
- AI governance: 42%
- Independent AI model validator for each use case: 30%

Vendor selection strategies (e.g., requiring explainable AI): 21%
AI application security program: 20%
Explainable AI frameworks: 19%
Adversarial attack resistance: 17%
Not sure: 5%
Other: 1%
None of these: 0%

n = 150

Source: Generative AI Security and Risk Management Strategies
D&A – AI-generated synthetic data can overcome real-world data shortfalls but is not infallible

- 60% adopted AI-generated synthetic data because of challenges with real-world data accessibility
- 56% improved model efficiency
- 51% availability
- 57% complexity
- 60% improved model accuracy
- 45% mitigated data privacy concerns

What best practices have you implemented to ensure the quality of your synthetic data is high? Select all that apply.

- 65% Use multiple data sources for generative models
- 59% Validate synthetic datasets
- 50% Check data quality before using in generative models
- 41% Review synthetic datasets regularly
- 25% Model audit process

Evaluate synthetic data quality 24% |
We haven’t implemented any best practices 7% | Other 0%

n = 150

Source: Generative AI for Synthetic Data
Additional Results: D&A

Synthetic data can improve model accuracy and efficiency, but many have faced challenges with lack of or low quality real-world source data.

The most often realized benefits of synthetic data at respondents’ organizations are improved model accuracy (60%), improved model efficiency (56%) and mitigated data privacy concerns (45%).

How has synthetic data benefited your organization? Select all that apply.

- Increased efficiency of data teams 25%
- Rebalanced datasets 23%
- Reduced data breach risks 19%
- Reduced overfitting 14%
- None of these 3%
- Other 0%

n = 150

What challenges have you experienced with synthetic data in your organization? Select all that apply.

- Not enough real-world source data: 51%
- Inherited bias in synthetic data: 46%
- Low quality real-world source data: 41%
- Inaccuracy caused by statistical noise: 34%
- Inability to generate outliers in synthetic data: 30%
- Lack of expertise: 25%
- Insufficient resources: 24%
- Accuracy degradation: 23%
- Integration with existing data systems: 14%
- Cost of computing power: 12%
- Selecting the right vendor: 11%
- Determining appropriate utility metrics: 11%
- Legal/ethical concerns (e.g., re-identification risk): 10%
- We haven’t experienced any challenges with synthetic data: 2%
- Other: 0%

n = 150

Source: Generative AI for Synthetic Data
More than half of respondents say generative AI is currently used in their software engineering department.

- **60%** of those use it for AI-assisted pair programming
- **78%** of those respondents use ChatGPT.

- **55%** do not have governance policies in place.

How do you use generative AI in your software engineering department? Select all that apply.

- AI-assisted pair programming (e.g., a tool that makes suggestions on code, functions, etc.) - **60%**
- Code generation (e.g., a tool that generates code snippets) - **52%**
- Code documentation generation - **45%**
- Productivity (e.g., generating to-do lists, meeting summaries, etc.) - **38%**
- Test data generation - **30%**
- Technical document generation - **30%**

Customer feedback summarization 20% | Governance document generation 12% | Hyperautomation support 12% | None of these 2% | Not sure 0% | Other 0%  

*Question shown only to respondents who answered “yes” to the question “Is your software engineering department currently using generative AI?”*

Source: Generative AI for Software Engineering Teams
Additional Results: Software Engineering

As for difficulties, respondents identified undesirable results (66%), lack of corporate governance policies (43%) and pushback from leadership (38%) as the biggest challenges associated with using generative AI in software engineering.

Overall, what are the biggest challenges associated with using generative AI in software engineering?
Select all that apply.

- Undesirable results (e.g., inaccuracies, dated information, bias) 66%
- Lack of adequate corporate governance policies 43%
- Pushback from leadership 38%
- Security concerns 35%
- Ethical concerns 32%
- Lack of viable use cases 31%

Additional Results:

- Licensing, IP or plagiarism concerns 29%
- Lack of regulations for generative AI tools 26%
- Lack of trust in generative AI vendors 25%
- Pushback from staff 24%
- None of these 1%
- I don’t have any concerns 0%
- Not sure 0%
- Other 0%

Software engineering and IT leaders are excited about generative AI’s use in code generation, but concerned with undesirable results.

- 55% AI-assisted pair programming
- 61% Code generation
- 48% Technical document generation
- 46% Test data generation
- 45% Code documentation generation

Respondents, whether their software engineering department uses or does not use generative AI, are excited about generative AI’s use in code generation (61%), AI-assisted pair programming (55%) and technical document generation (48%).

Overall, which use cases for generative AI are you most excited about for software engineering? Select all that apply.

- Productivity 35%
- Governance document generation 30%
- Hyperautomation support 25%
- Customer feedback summarization 18%
- There are no promising use cases 4%
- None of these 1%
- Not sure 0%
- Other 0%

Source: Generative AI for Software Engineering Teams
Supply Chain* leaders are looking to AI to address the corporate brain drain and increasing unpredictability

- 40% of respondents are already using Generative AI as a part of their supply chain strategy
- 45% plan to deploy it soon
- 71% expect that generative AI will become a standard in supply chain within 4 years.

Nearly half of surveyed supply chain leaders are using or plan to use generative AI to enhance internal knowledge bases

- 42% plan to use it to generate predictive models

How are you using, or how do you plan to use, generative AI as a part of your supply chain transformation strategy? Select all that apply.

- Internal knowledge base enhancement: 49%
- Problem resolution management: 44%
- Generating interactive predictive models: 42%
- Customer service supplement: 39%
- Inventory management: 32%
- Lower-level task automation: 28%

Source: Generative AI for Supply Chain Transformation

*Survey still in collection phase. Results are preliminary
Marketing* — expects generative AI to become a mainstay in the MarTech stack, and many are already using it.

100% reported that they believe generative AI will be a regular aspect of marketing team’s tech stacks within 6 years.

76% of marketers report their content marketing teams are already using generative AI, the top choice among respondents.

How long do you think it will be until generative AI is used regularly as part of marketing teams tech stacks?

- 23% Less than one year
- 70% 1-2 years
- 6% 3-4 years
- 1% 5-6 years

7.10 years 0%
More than 10 years 0%
Generative AI will never become a standard on marketing teams 0%
n = 110

Source: Generative AI in Marketing

*Survey still in collection phase. Results are preliminary.
Sales* - Some believe they can completely replace a team member with generative AI, with sales ops being most common

- 37% believe generative AI tools would allow them to completely replace a person on their team while still producing the same results.
- 74% believe sales operations roles could be replaced.
- 55% say they would be extremely or moderately concerned if a customer discovered their content was AI generated.

Do you believe generative AI tools would allow you to completely replace a person on your team (e.g., operations, enablement, or admin) while still producing the same results?

- 37% Yes
- 36% Yes, but not until the technology is better
- 23% No
- 4% Unsure

Note: May not add up to 100% due to rounding.

Source: Generative AI Sales Tools

*Survey still in collection phase. Results are preliminary
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Additional Insights
One-Minute Insights
Individual Reports for Deeper Dives

1. Generative AI for Software Engineering Teams
   BENCHMARK YOUR RESPONSES
   GET FULL REPORT

2. Generative AI for Synthetic Data
   BENCHMARK YOUR RESPONSES
   GET FULL REPORT

3. Generative AI Security and Risk Management Strategies
   BENCHMARK YOUR RESPONSES
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4. Generative AI and ChatGPT: Adoption and Use
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