Insight

BEYOND HYPOTHETICALS:

Understanding the Real Possibilities of Generative AI

TABLE OF CONTENTS

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Meeting the moment

If you've read as many press releases and whitepapers on generative Artificial Intelligence (AI) as we have, you're probably wondering: Are we on the cusp of artificial general Intelligence? And, if so, what does that mean for humankind and the future of our species?

While conversations like these are great for cocktail parties, they're not the conversations taking place in boardrooms around the globe. The executives we speak with are asking how they can adopt this technology without employees becoming overly dependent on it. They're asking which jobs will be replaced by generative AI and wondering if they've reached peak employment. They're curious about how to leverage it to connect with customers, drive product innovation and promote revenue growth. More than anything, they're asking how quickly they can access generative AI without exposing their organization's proprietary data.

Time is of the essence, so we're going to skip the philosophical debate. And we're not going to present my perspective in a vacuum or Insight's exclusive opinion on generative AI. Instead, we'll offer our thoughts against the backdrop of the combined intelligence of hundreds of executives, whom we recently surveyed in partnership with The Harris Poll, on the most important questions for business leaders today.

We hope you come away more informed — and excited — about the real-world applications of generative AI to help you transform and stay ahead in this rapidly evolving landscape.

Carm Taglienti   *David A. McCurdy*

Demystifying generative AI

The origins of generative AI can be traced to early AI research in the 1960s.

The technology has since evolved through the inception of the transformer and large language models over the past 10 years.

But it truly reached public consciousness when OpenAI launched public testing of ChatGPT in November 2022. Since then, conversations and content exploring generative AI have exploded.

What is Generative AI?

Generative AI is a subfield of artificial intelligence that uses a neural network approach to generate output that resembles human-created content, such as text, images and music. The neural network models produced by these techniques are called Large Language Models (LLM). User-provided instructions, known as "prompts" or "inputs," induce the model to generate a response, also known as an "output."

How does it differ from conversational AI?

Both technologies execute activities using training data — information provided to the model that informs the output. Where they differ is that generative AI outputs are probabilistic, meaning that each output is unique and informed by the input and training data. Conversational AI outputs are semantically assessed and then match the input with a pre-defined output.

What are some examples of tools already in use?

- ChatGPT (OpenAI)
- Bing (Microsoft + OpenAI)
- Bard (Google)
- Stable Diffusion (Stability AI)
- Adobe Firefly (Generative Art)
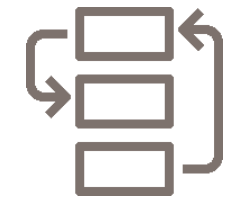
What are some examples of forthcoming tools?

- Copilot, which will be integrated into Microsoft 365
- Duet AI, which will be integrated into Google Workspace

TRANSFORMATION

GENERATIVE AI AT WORK:

Enterprise use cases

In the next 12 months, increasing revenue and driving innovation are business leaders' number one and two priorities, respectively.[1] And almost half (49%) say keeping pace with competitors on technological innovation is a top challenge this year. [1]
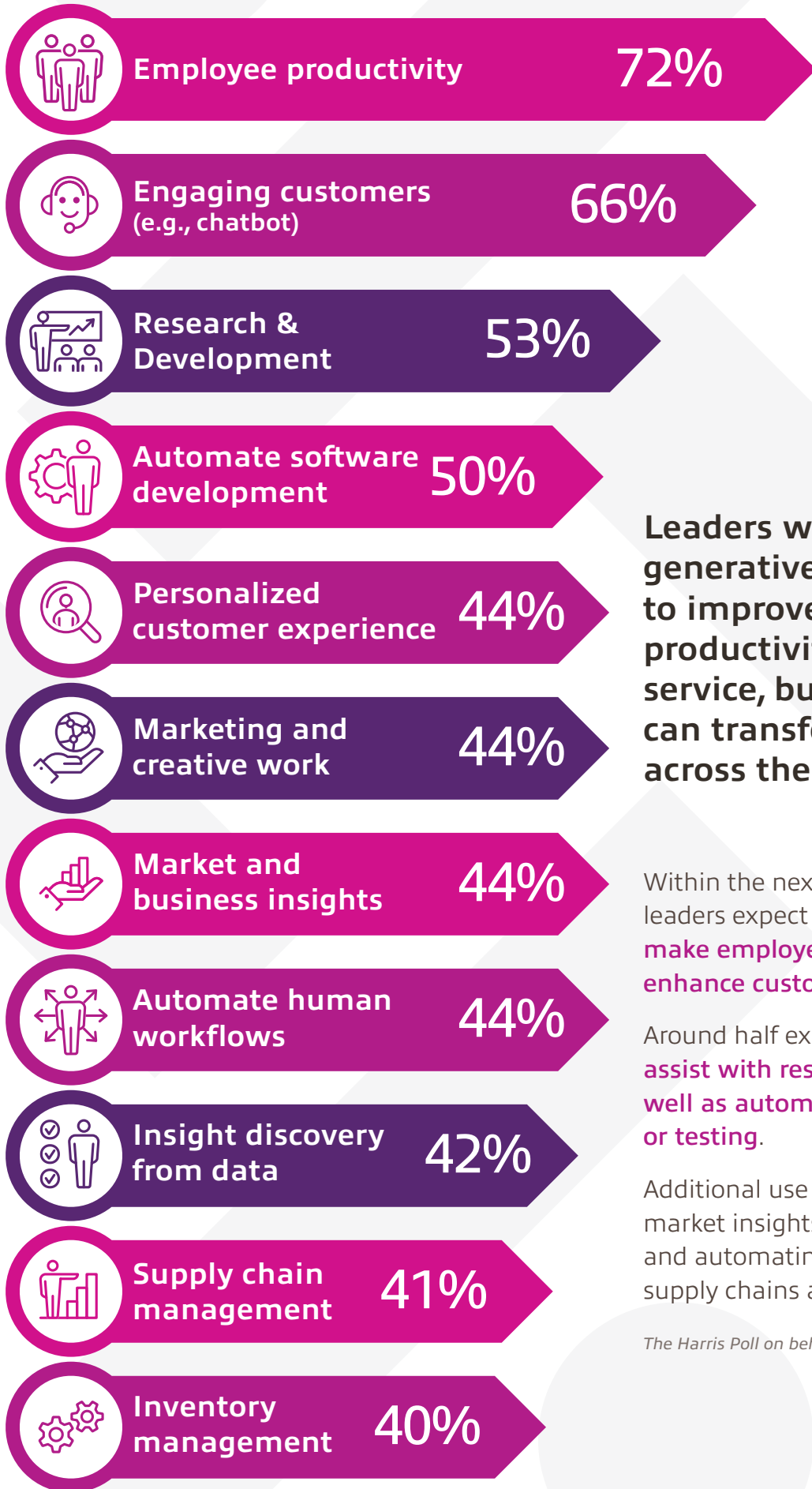
Generative AI can help leaders achieve these goals — and much more. Opportunities abound to leverage this technology to embrace new ways of working, drive efficiency, enhance customer service, speed innovation and increase competitive advantage.

Like the internet, mobile and cloud before it, generative AI will fundamentally change how businesses operate — for the better.

To determine the business value of generative AI, organizations need to first prioritize the processes and workflows that could be materially improved by leveraging this technology. This means identifying activities that involve the creation of unique content — such as marketing materials or code creation — and assessing whether automating this content creation will yield key outcomes, such as quantifiable productivity gains.

[1] *Insight. (2023). The 2023 Insight Intelligent TechnologyTM Report: Are We Entering a New Era of Innovation?*

Employee productivity — 72%
Engaging customers (e.g., chatbot) — 66%
Research & Development — 53%
Automate software development — 50%
Personalized customer experience — 44%
Marketing and creative work — 44%
Market and business insights — 44%
Automate human workflows — 44%
Insight discovery from data — 42%
Supply chain management — 41%
Inventory management — 40%

Leaders want to adopt generative AI primarily to improve employee productivity and customer service, but they believe it can transform workflows across their organizations.

Within the next three years, most business leaders expect to adopt generative AI to **make employees more productive and enhance customer service**.

Around half expect the technology to **assist with research and development as well as automate software development or testing**.

Additional use cases include surfacing market insights, developing creative work, and automating the management of supply chains and inventory.

The Harris Poll on behalf of Insight Enterprises, May 2023.

Generative AI has the potential to **revolutionize** various enterprise use cases by automating and enhancing specific tasks across teams.

KEY USE CASES	Sales	Marketing	Finance	Operations	IT	Legal	HR
FIND	Customer insights	Trend analysis	Fraud detection	Predictive maintenance	Network security	Contract analysis	Resume screening
SUMMARIZE	Sales reports	Social media monitoring	Risk analysis	Quality control	Performance monitoring	Compliance monitoring	Employee feedback
CREATE	Product recommendations	Ad copy	Financial statements	Supply chain optimization	Code optimization	Legal briefs	Onboarding materials
CODE	Sales forecasting	Campaign optimization	Investment strategies	Production planning	Bug detection	Contract generation	Performance metrics

The Harris Poll on behalf of Insight Enterprises, May 2023.

EFFECTIVE USE CASES

- Content creation
- Data generation
- Code generation
- Understanding language
- Human-like interactivity, contextuality and adaptability
- Support for automation
- Support for data-driven decision-making processes

Aligning generative AI to workflows

Aligning generative AI to organizational workflows requires a clear understanding of where the technology is effective and what challenges will need to be addressed.

CHALLENGES TO NAVIGATE

- Security and privacy
- Compliance
- Bias
- Limited capabilities
- Trust
- Dependency on quality data
- Lack of "explainability" (i.e., an inability to explain the model's decisions)

The Harris Poll on behalf of Insight Enterprises, May 2023.

Generative AI models take on new levels of capability through extensibility.

Running generative AI in a private and secure environment allows organizations to explore several potential paths to achieve the most value for the business and teams.
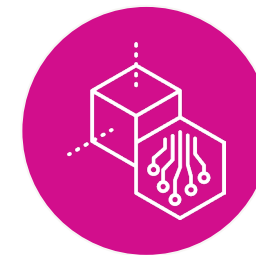
Tailored input

Augmenting the model with the organization's existing corpus of knowledge using a search layer involves looking closely at the data, identifying which data will drive priority business outcomes and determining how to structure that data so the responses can be enriched in context.

Model tuning

Adjusting, or fine tuning, how the model operates and makes decisions can help an organization yield better results for its specific needs. Model fine tuning further refines an already pre-trained model to produce astute and audience-appropriate responses for a specific use case.

Model training

Although a larger endeavor, organizations can also create their own models by providing unique training data. Well-curated data assets can be used to train the model — giving an organization a customized large language model that is both secure and able to easily support specific business objectives.

Prompt engineering — the act of providing instructions to the model with tailored inputs that includes stringing several instructions together to reach a desired output or providing past outputs as inputs with some edits — plays an important role for all pathways to growing the generative AI model's capabilities. Organizations will need to focus on growing this skill across all generative AI end users.

SAFETY & SECURITY

in the era of generative AI

Business leaders are excited by the promise of this technology, but they express key concerns about safely integrating it into their organizations.

There are worries about vulnerabilities stemming from inaccuracies and misinformation, human error and internal and external data breaches.

They're right to be concerned. We're entering a new era of heightened security risks, and it demands we continuously help end users understand what's at stake.

Fortunately, there's **a lot we can do to protect our businesses and people** while still leveraging the full power of generative AI.

Top safety concerns

Issues related to safety and security appeared in three of the top four concerns around implementing generative AI.

In particular, leaders worry that stakeholders — from employees and investors to customers and beyond — will fall prey to **external AI-generated content**, such as misinformation, deep fakes and phishing scams.

They are almost equally concerned about data breaches and leakages resulting from internal generative AI solutions that widen access to company data and Intellectual Property (IP).

Leaders are also focused on **risks from inside the organization**, like an accidental data breach stemming from inadvertent employee error.

Top 4 concerns around implementing generative AI

51%
Quality and control
(e.g., the risk of losing control over the content, misinformation and/or deep fakes)

49%
Safety and security risks
(e.g., cyberattacks and data breaches)

39%
Limiting human innovation
(e.g., workforce relying too heavily on generative AI technologies)

38%
Human error
(e.g., lack of understanding how to use the tool and accidental human-driven data breaches)

The Harris Poll on behalf of Insight Enterprises, May 2023.

Key security tenets

The key tenets of generative AI security are confidentiality, integrity and availability.

An organization must understand its appetite for risk and assess the technical innovations generative AI can yield with the overall risk of doing so.

Early adopters run the risk of having to blaze the trail on their own, but they also stand to benefit from being first to market.

Leaders need to give guidance to the entire company via security policies and governance models with either new policies or additions to existing ones.

The security triad for generative AI

Confidentiality
Employees will want to leverage corporate data with generative AI models, so organizations need to consider the quality and sensitivity of that data. They should also apply appropriate labels and controls to prevent unauthorized use.

Integrity
Incorrect outputs are still possible with generative AI models despite their effective utility across many use cases. Creating verification processes and implementing a closed feedback loop for continuous improvement in response accuracy will ensure the data receives the right level of scrutiny to avoid gross miscalculations.
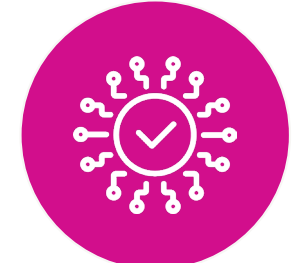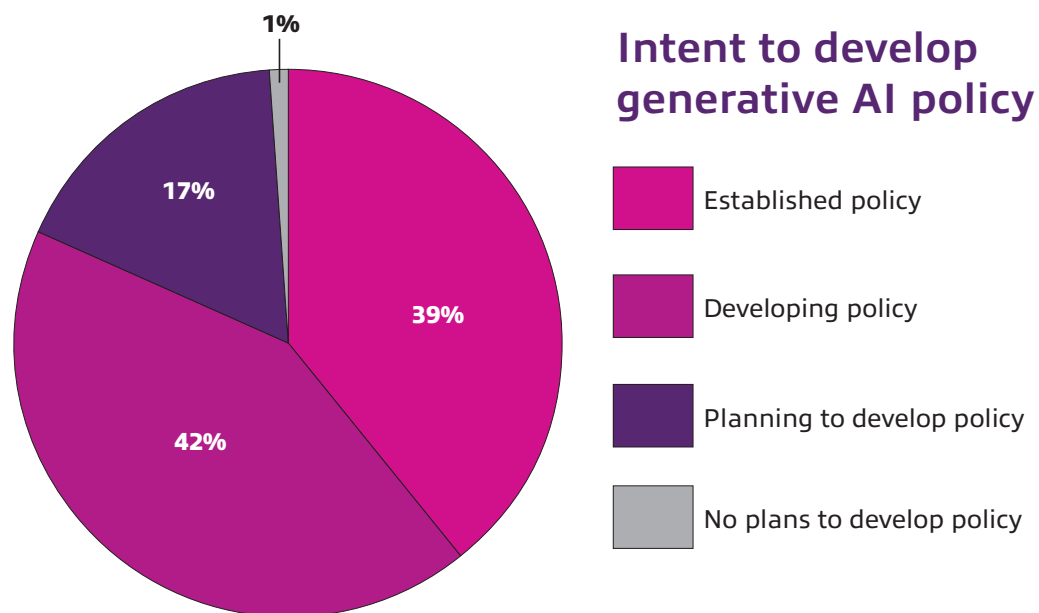
Availability
Although it may seem like a less obvious security consideration, availability of systems is crucial. If generative AI makes its way into automation and orchestration workflows without appropriate quality assurance and testing, the results could be unpredictable at best and devastating at worst.

An internal generative AI policy is already in play at most organizations.

81%

of leaders say their company has already established, or is currently developing, internal generative AI policies.

1%

Intent to develop generative AI policy

- Established policy
- Developing policy
- Planning to develop policy
- No plans to develop policy

39%

42%

17%

The Harris Poll on behalf of Insight Enterprises, May 2023.

An internal policy outlines how an organization will responsibly and securely use generative AI.

Some common elements include:

Roles and responsibilities of the people involved in implementing generative AI

Data governance in the context of generative AI

Model training standards and best practices

Security and privacy controls, including user access, encryption and incident response plans

Ethical use and copyright infringement guidelines

Compliance and legal considerations, especially industry-specific guidance

Employee training protocols

Monitoring and auditing mechanisms

WORKING TOGETHER:

Employees and Generative AI

Some of the most pressing questions involve generative AI's impact on employees. How will teams interact with it? How will it change jobs? Will it replace workers?

These questions are valid, but the **power of generative AI is its ability to augment, not replace, human intelligence**.

History tells us if you give humans the right tools, they will make themselves more productive and discover new ways to use those tools to their benefit. Embracing this technology gives employees an unprecedented opportunity to evolve and elevate how they work and, for some, discover new career paths.

Generative AI and human creativity

Leaders worry about stifling human innovation and creativity, but human ingenuity will be more important than ever.

These tips can help employees and teams indulge their critical thinking and creative skills when collaborating with generative AI.

39%

Limiting human innovation
(e.g., workforce relying too heavily on generative AI technologies)

The Harris Poll on behalf of Insight Enterprises, May 2023.

One of leaders' top concerns about adopting generative AI is that employees may become too reliant on it.

Yet, generative AI is most **effective** with smart, attentive and creative humans operating it.

Employee ingenuity will be integral to developing strong prompts, thoughtfully overseeing outputs and shaping them into useful, impactful information.

Far from stifling human innovation, generative AI presents myriad opportunities to **sharpen it**.

1 Teach effective prompting

Train employees on best practices, teach them how to refine their queries to achieve targeted outputs, and invite them to document and share their learnings.

2 Watch for bias, discrimination and misinformation

Careful, attentive human oversight is needed to assess the quality and integrity of the output and adjust the prompts accordingly.

3 Talk about plagiarism

Help people understand when they can and can't use AI-generated content in their personal output — be it internal presentations, product design or marketing communications.

4 Establish approval workflows

Build adequate time into project schedules for the right people to review the content and sign off.

5 Encourage safe experimentation

It helps people feel invested in the process — and they'll likely discover entirely new use cases.

User-provided instructions, known as "prompts" or "inputs" induce the model to generate a response, also known as an "output."

Opportunities for key roles to leverage generative AI

Nearly every role in an organization can leverage generative AI to positive effect — and productivity gains are just the beginning.

Integrating human and generative AI workflows is an opportunity to make everyone more productive — **and fulfilled** — at work.

When employees can streamline tedious tasks, efficiently clear backlogs and outsource soul-crushing work to AI, they're free to focus on meaningful activities. They have greater bandwidth to tackle advanced tasks, with adequate time and mental energy for innovation. And these outcomes all add up to a workforce that feels **more engaged, stimulated and fulfilled.**

Nine in 10 business leaders believe a wide range of roles will be enhanced by generative AI. In short, they believe nearly **everyone and every function** can benefit from this technology.

And, in this new reality, the employees who truly understand the value proposition of generative AI for their roles, along with the best strategies for using it, stand to gain the most.

90%
of business leaders say generative AI can enhance a wide range of roles.

Business leaders believe data analysts and scientists, software developers and testers, finance teams and communications teams will be most impacted by generative AI.

Here's how the technology can help employees in these roles streamline workflows and focus on value-added activities:

Data scientist or machine learning engineer
- Create preliminary dataset visualizations or summaries
- Detect anomalies
- Impute missing data
- Use historical data to develop predictive analytics
- Develop decision modeling

Software developer
- Auto-complete code
- Refactor code
- Generate documentation
- Provide inspiration for UI design
- Debug software
- Manage version control

Software tester
- Auto-generate test datasets
- Generate test cases
- Explore test scenarios
- Automate test scripting
- Analyze test results
- Auto-generate test reports

Financial operations
- Automate data entry
- Analyze financial data and extract insights
- Detect fraud
- Model risk assessment
- Develop predictive analytics: forecast revenue, cash flow, ROI
- Updates of compliance and regulatory changes

Communications
- Summarize third-party content and research
- Proofread and copy edit
- Generate rough drafts
- Assist with translation
- Analyze social media data
- Create and edit images

A ROADMAP FOR ADOPTION

Implementing generative AI is a big step — but there's no need to dive in headfirst.

Organizations can start small, adopting it to make people and processes more productive almost immediately. For example, generative AI's LLM can bolster internal analysis by identifying patterns that offer a clear picture of the business. Streamlining non-mission critical tasks that are more consistent, structured and rote is also a good place to begin.

To get started, organizations should establish a core set of capabilities and ROI. Then, they can identify the high priority use cases, along with the data requirements and model-customization approaches that will realize value for those use cases.

In the early stages of adoption, the goal is to inform the model and develop trust with it, so it can be leveraged for bigger and better tasks down the road.

The time is now

Roadmap for integrating generative AI

1. Define the business problem

Are you looking for a quick hit, like productivity gains, or something more significant, like product innovation?

2. Develop your internal policy

What are the guidelines governing usage at your organization?

3. Establish ROIs

How will you measure generative AI's impact on your desired business outcomes?

4. Design your OCM plan

How will you shepherd employees and teams through adoption and implementation?

5. Validate the generative AI approach

Which types of content will you create for each use case? Which form of generative AI is most appropriate for those workflows?

6. Prepare for continuous evolution

How will you maximize your investment over time?

Insight

As the leading Solutions Integrator, we are ready to help our clients and partners unlock the potential of this transformative technology.

ROADMAP

[12°34'56.7"N 123°45'67.8"W]
[12°34'56.7"N 123°45'67.8"W]
[12°34'56.7"N 123°45'67.8"W]
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40 73 15

12°34'56.7"N 12°45'67.8"W

12°34'56.7"N 123°45'67.8"W

350 400 450 500 550 600 650 700 750 800 850 900 950

THERE'S ONE MORE QUESTION TO ASK OF GENERATIVE AI: Is it a sustaining or disruptive innovation?[1]

At Insight, we believe it's both.

For the hyperscalers and chip manufacturers leading the computing charge, this technology is undoubtedly sustaining — an innovation that will help them improve delivery of products and services while maintaining their market share and customer base. For others, like startups and independent software vendors, generative AI will be a disruptive force that accelerates their growth. It will open new business models, attract new customers and generate new revenue streams.

But every business can benefit from generative AI — and today is the time to start. Each day that passes is another day teams spend on tedious tasks instead of more meaningful work. Another day employees may be using public tools behind their organization's back, putting confidential data at risk. Or another day competitors are pulling ahead and away from the pack. After all, 82% of leaders today believe organizations must invest in digital transformation initiatives, like generative AI, or be left behind.[2]

Time is of the essence, but that doesn't require acting impulsively. Like any other digital transformation initiative, implementing generative AI requires a strategic approach tailored to the needs of each organization.

It's early in our collective generative AI journey, but we're more than ready to help our clients and partners unlock the potential of this transformative technology.

[1] Bower, J. and Christensen, C. (1995, Jan.). Disruptive Technologies: Catching the Wave. Harvard Business Review.

[2] Insight. (2023). The 2023 Insight Intelligent TechnologyTM Report: Are We Entering a New Era of Innovation?

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About the Insight-Harris Poll

405
U.S. adults

Ages **25+**

1,000+
employees at
companies
employed
full-time as
directors or higher

Online
survey conducted
April 26 to
May 3, 2023