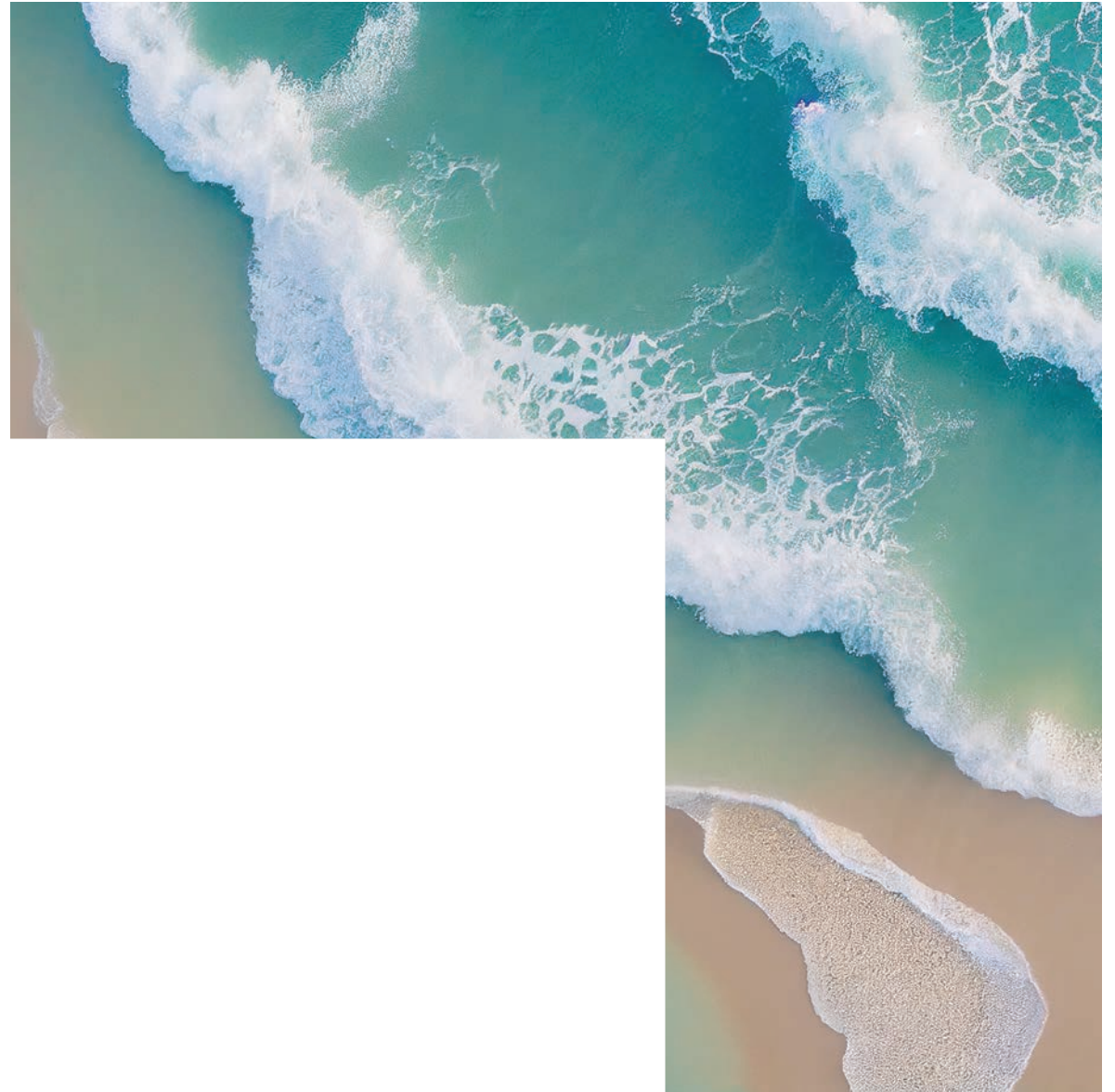




AI without fear or favor

A PRACTICAL GUIDE TO HARNESSING THE TECHNOLOGY
TRANSFORMING OUR WORLD



“We believe the business value of AI will be achieved through the combination of human expertise and ethical use of technology.”

George Schindler
President and CEO
CGI



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Execute your strategy through four imperatives for action

Approach your AI adoption following four key imperatives: envision, experiment, engineer and expand.

Ready to make some waves?

New innovations are on the horizon—the time to act is now.

Are you ready for the next wave of AI innovation?

Artificial intelligence (AI) is a transformative technology dramatically reshaping business and society, spreading at a pace that outstrips even the internet and mobile phones. Generative AI represents a significant step forward from traditional AI in its ability to solve problems and create new content—from images to text to code to music—based on learned patterns. Certainly, its widespread accessibility will continue to increase its ubiquity and drive consumer demand to new heights.





For years, organizations have used AI-powered chatbots to gain insights and drive customer satisfaction. AI has also helped organizations automate back-office business processes, perform quality control checks, create predictive analytics and more. As those capabilities continue to evolve, new iterations of AI have quickly made a splash. From applications that auto-generate customer service responses to platforms like OpenAI's ChatGPT and Google's Bard, generative AI's powerful content creation capabilities are helping consumers and organizations drive efficiency, spark creativity and boost convenience.

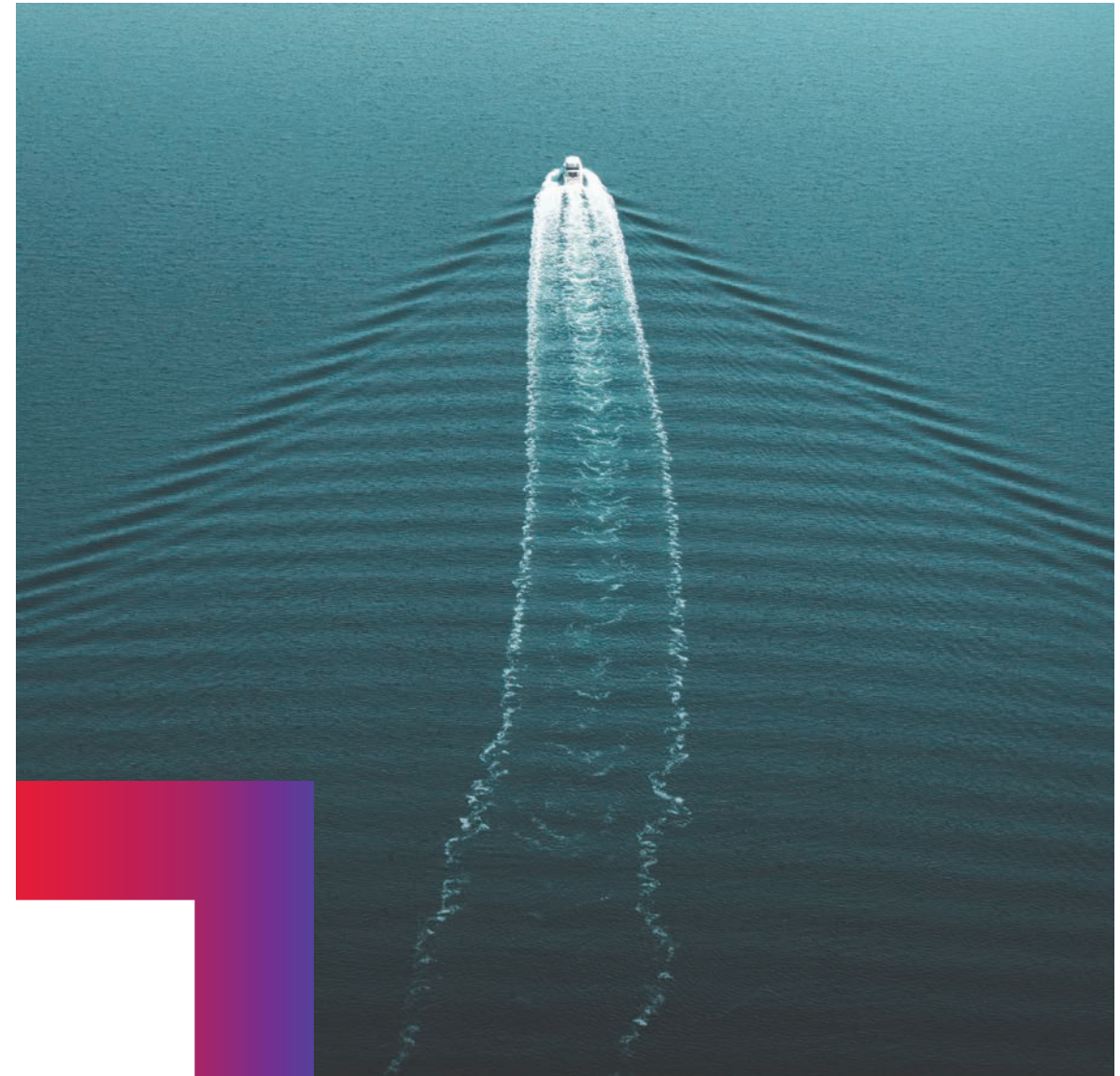
Yet, as AI proliferates, so do its risks. Challenges such as operating in a largely unregulated landscape and facing a lack of transparency in data sources and outputs could have significant adverse impacts.

Standing before a sea of possibilities, leaders are asking themselves:
Do we dip our toes in the water or dive in head-first?

Turbulence or fair winds and calm waters ahead?

This complex, high-stakes environment has brought today's business leaders to an inflection point. They're keen to take advantage of AI's tremendous potential but are hesitant to move forward due to significant risks posed to their security, privacy, and brand reputation, as well as implications for non-compliance with evolving regulations. Rightly so.

To determine the best path forward, CGI's Responsible Use of AI Framework, combined with our AI Strategy Framework, reconciles these conflicting positions to develop an ROI-led, scalable AI strategy that is ambitious, achievable, and aligned with business objectives.



We advocate a practical and human-centered approach that brings order to the chaos, tempers the hype, and enables organizations to confidently embrace AI and deliver expected value. We believe the organizations best positioned for success in an AI-enabled future are those that adopt four key imperatives for action—**envision**, **experiment**, **engineer** and **expand**—further elaborated later on in this paper.

CGI's Responsible Use Framework

A trusted partner can help organizations navigate the complexity and uncertainty of AI to create value with AI responsibly, mitigate risk, and shape a positive future. CGI's ROI-led, human-centered approach includes:

- Adaptable AI strategy that aligns with your business vision
- Value-based strategic intent for the use of AI
- Human-centered design focus
- Best practices for balancing ambition and practicality
- Proven methods that integrate scientific rigor into AI solutions

In addition, AI systems must be ethical, robust and trustworthy throughout the design-to-deployment life cycle. CGI's Responsible Use of AI Framework with humans in the loop helps organizations define the principles, governance and operating models needed to ensure trusted outcomes and confidently seize AI's potential. Our goal is to empower organizations to realize the benefits of AI responsibly, in alignment with their organizational and societal values.



AI tops innovation investment areas over the next three years.

Today

57%

are investigating AI or doing proofs of concept, or implementing AI

66%

of organizations with agile business models are accelerating AI implementation

22%

of leaders in manufacturing have incorporated the agile business models necessary to address the digitation required for AI implementation

Define (or refine) your AI strategy

A well-developed, scalable AI strategy balances ambition with pragmatism while staying focused on business value.

Yet even if your organization already has an AI strategy, it may not account for rapidly emerging technologies such as generative AI. It's smart to bring in partners with deep domain expertise who can help you spot the gaps and provide a cross-industry perspective.



CGI provides clients with up-to-date best practices and designs for technology roadmaps and implementation strategies, as well as the expertise to develop guardrails, policies and governance. As AI adoption accelerates, we work with clients to conduct risk assessments against the current landscape and help implement proactive measures for content moderation, ethical guidelines, continuous monitoring and responsible deployment.

A caveat: While it's true that your AI strategy should be adaptable to emerging trends, it must always stay grounded in practicality and everyday innovation.

For all its promise, AI is not a cure-all for every business challenge. During our exploration and discovery with clients, we often identify issues better solved with more conventional technologies. Similarly, your AI strategy should focus only on the initiatives that will add meaningful value and advance your digital transformation journey.

“Regarding competitiveness, it's all around strategy. From a PNC perspective, what are we trying to do for our clients? What are the problems we are trying to solve? We have those strategies laid out, and how can we execute against those strategies. Building is really important, working with technology providers like CGI is really critical when I look to roll out new products.”

Tom Lang

Head of Product and Operations, Treasury Management
PNC

Are you ready for the next wave of AI innovation?

Turbulence or fair winds and calm waters ahead?

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Build a future-fit AI operating model

Execute your strategy through four imperatives for action

Ready to make some waves?

Build a *future-fit* AI operating model

Every AI strategy is only as good as the operating model in place to support its execution. Above all, the model should be forward-looking and adaptable to change. To deliver business value from AI responsibly, prioritize the creation of an operating model that allows for efficient allocation of resources and delivers standardized processes, methodologies, risk management plans, security, training and enterprise-wide best practices.

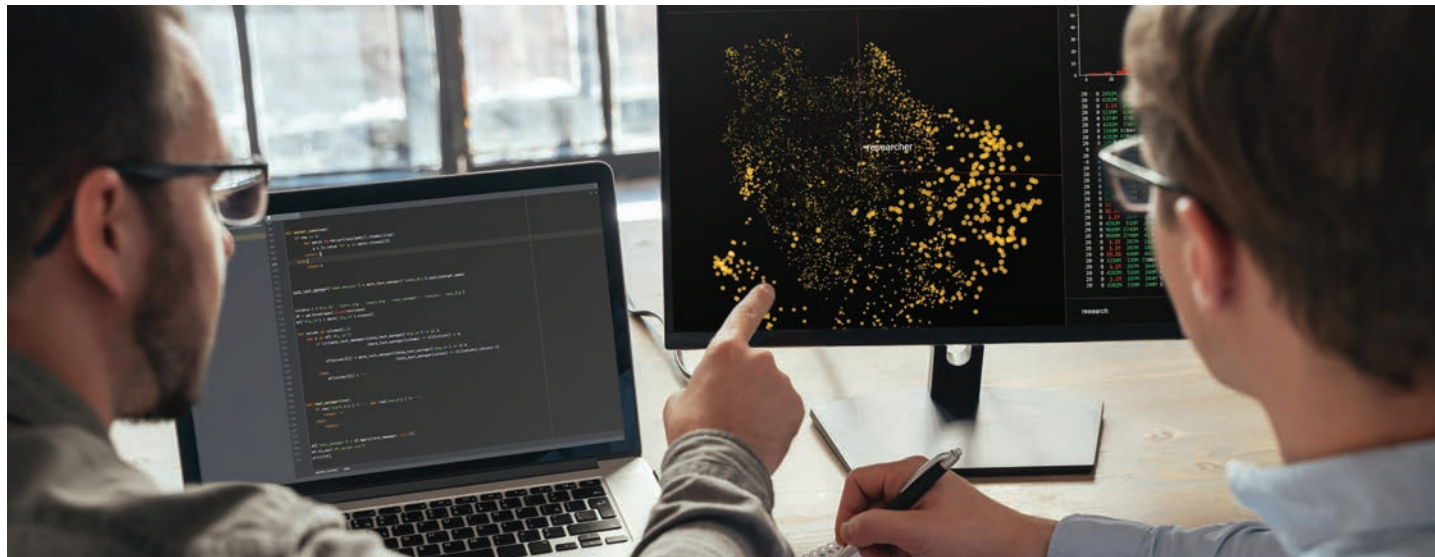


An effective AI operating model balances standardization with agility, enabling a quick response to emerging risks while fostering continuous improvement and innovation. Some of our clients have developed centralized models that combine generative AI with other AI capabilities and foundational elements—including data, expertise and strategic processes—to serve the entire enterprise. But hybrid or decentralized models that allow for more departmental autonomy can also be effective. In any case, your AI operating model should integrate smoothly with broader organizational structures and overarching business objectives.

CASE IN POINT

Large communications provider

Succeeding with AI requires a strong culture of innovation. Because AI is a fast-changing and fast-growing technology, organizations need a culture that drives innovation in an agile, flexible, and motivating way. CGI is working with a large communications company that has made this investment in its culture. As a result, they were early adopters of AI and continue to pursue it on an ongoing basis. With the advent of GenAI, the company asked CGI to create a research and development (R&D) team to explore new use cases to continue their market innovation. With their strong innovation culture in place, CGI helped them rapidly establish, expand and upskill a GenAI R&D team, develop a proof-of-concept for a Gen AI-powered SQL query generator within eight weeks, and implement a fully baked solution within four months. What's more, the solution generated an immediate return on investment.

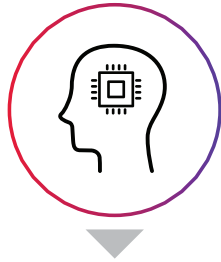


Execute your strategy through four imperatives for action

A clear strategy and agile operating model are the building blocks for successful execution. Yet the AI implementation phase is where clients often get stuck. Organizations may be either fearful—moving too slowly or tackling small, safe projects that don't add value—or reckless, plunging ahead on too many initiatives or going all-in on a major project before considering its risks, dependencies and broader implications.

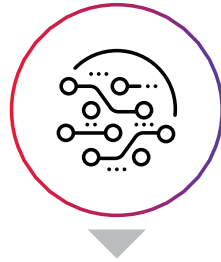


You can avoid these pitfalls with four clear imperatives for action: **envision**, **experiment**, **engineer** and **expand**. Each imperative breaks down execution to help you progress toward implementing human-centric, ROI-led AI. Our approach is rooted in scientific rigor, based on established patterns and observable trends combined with responsible principles and values.



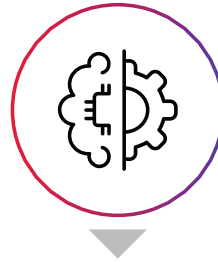
Envision

Craft a responsible AI strategy that aligns with business priorities and mitigates risks



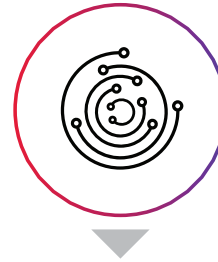
Experiment

Identify use cases and explore opportunities to drive business value



Engineer

Build adaptive foundations, including an enterprise-wide data strategy that supports insights-driven innovation and an agile operating model that delivers AI at scale



Expand

Scale, operate and govern an ROI-led and responsible AI portfolio

ACCELERATOR SPOTLIGHT

CGI's AI LaunchPad

Developed in partnership with clients, this accelerator provides an AI factory framework to progress through the four imperatives— from ideation to proof of concept to building and deploying, providing efficiencies, risk mitigation, and ROI on AI investments.



Envision: Imagining your future state

The first step in determining what you *will* do is imagining what you *could* do. This discovery phase should include all stakeholders and articulate a bold vision for your organization's human/AI future. Strategic questions to explore include:

- How can we ensure our AI strategy matches our goals as an organization and as individuals?
- How do we use AI to enable the development of new products, drive efficiencies and optimize our business?
- How can we integrate AI into the workplace while keeping humans at the center?

Thinking big also means considering emerging trends and the changing regulatory landscape, which could alter or limit your ambitions. For example, in 2023, the White House issued an [Executive Order of the Safe, Secure and Trustworthy Development and Use of Artificial Intelligence](#), which introduces key guardrails for using AI and takes steps to protect people's rights. This will have a lasting impact on future AI developments and reinforces the importance of establishing a responsible use framework to ensure adherence to guiding principles and governance models in place to comply with evolving rules and regulations.

CASE IN POINT

National mortgage organization

As part of the organization's focus on streamlining the mortgage loan delivery process through technology, the organization looked to CGI to help develop a generative AI strategy and identify opportunities and use cases for gaining efficiencies, improving quality and reducing risk. CGI collaborated with executives across multiple departments such as technology, marketing and communications, governance risk and compliance, and others to deliver a cohesive generative AI strategy to drive enterprise-wide technical capabilities.



Experiment: Driving distributed experimentation and ROI-led innovation

Once you've articulated a vision, it's time to focus on the projects that will help your organization achieve it. Scan all corners of the organization to identify use cases for distributed experimentation. Work in an agile way from ideation to MVP development. Measure results to inform the next steps.

Be open to "ah-ha" moments and unexpected lessons – like the need for higher-quality data, a change in infrastructure, or a process overhaul. Stay open to simple, non-AI solutions to issues you uncover along the way.



“As part of the company's strategy to help clients achieve 'speed to trusted action' through AI solutions, CGI works with clients to discover AI use case opportunities through AI Design Sprint workshops and to establish AI center of excellence capabilities and governance (including ethical AI and MLOps).”

IDC MarketScape:

Worldwide Artificial Intelligence Services
2023 Vendor Assessment, doc #US49647023
May 2023



Engineer: Building a foundation for AI readiness

This phase relates to the AI operating model and data readiness imperatives to create a firm yet flexible foundation on which to build. To unlock AI's full potential, develop a governance and operating model that balances positive impacts with risk mitigation. Invest time into developing strategies for AI talent and upskilling, data readiness, culture change, tech infrastructure, and other key enablers, and you'll reap the rewards, including faster time to value.

In another viewpoint paper, [Is your data ready for the AI revolution](#), we explore how establishing an enterprise data strategy is a prerequisite to achieving your goals for AI. Strengthen your data foundation by focusing on four key principles:

① Create a data-driven culture by focusing on these fundamentals

- Engage in data-driven decisions advocated by top leadership
- Educate the company to mature employees into data citizens
- Promote access to data to allow for decentralized experimentation and innovation
- Remove blockers that impede progress

② Adopt an agile approach to data governance

- Identify high-priority business use cases and focus on improvements where you'll see the most return
- Stay ready to change directions as you learn more and continue to advance better data governance across the organization

③ Implement a modern data management style

- Introduce modern data platforms that focus on accelerating the value of data and providing flexibility of ownership
- Apply product management principles to data, considering the entire life cycle as you would a product

④ Focus on the critical information

- Direct your efforts toward the data needed to make operational and strategic decisions
- Map data to business value, such that data is turned from a liability to an asset



Expand: Accelerating value and operating responsibly

Bringing AI to scale across the enterprise should balance speed and efficiency with responsible practices. Rather than one-offs or scattershot initiatives, create a holistic AI solutions portfolio, including accelerators and intellectual property, that aligns with organizational values and objectives. Moving forward with an agile approach to your organizational model—centralized or decentralized—will allow you to quickly evaluate and scale your AI strategy to meet your business goals.

Ethical practices should be baked into the entire life cycle—including data, models, actions, feedback loops and learning processes, with humans in the loop.



CASE IN POINT

Oil and gas compressor organization

The organization turned to CGI to help support field service technicians on the job with enhanced troubleshooting tools. CGI's solution included processing 10+ text and diagram heavy manuals and integrating them with Azure Cognitive Service and Open AI services to index files and generate accurate answers to technicians' questions. CGI also developed a lightweight web application for them to interact with a generative AI model in multiple languages. Next, CGI will help integrate chatbot functionality into the mobile app to provide support to technicians for diagnosing problems and resolving them quickly while in the field.

CASE IN POINT

University hospital

CGI is helping a university hospital to apply responsible use of AI best practices by ensuring humans in the loop for an ethically developed AI test solution to support radiologist decision-making. In collaboration with CGI and a leading manufacturer of high-tech digital marketing devices, the hospital is developing an AI solution that assists radiologists in interpreting brain CT scans and detecting the most common types of non-traumatic brain hemorrhages. By detecting brain bleeds that are challenging to catch with the human eye, this AI solution is using early analysis to help save lives through early diagnosis and treatment.

This implementation leverages responsible use best practices by ensuring a human in the loop approach. The radiologist and AI first analyze the images independently, and then the AI outputs provide expert advice to the clinician. After the radiologist has made their diagnosis, they can compare their assessment with the AI results.

Key to this project has been the application of a responsible use of AI framework that ensures privacy and security risks are addressed for the data, the environment, and any data movement from the diagnostic imaging through to analysis. The solution also employed academic rigor and best practices to ensure the model and its outputs were accurate, that the solution was scalable, and that experts were engaged in the design through interpretation of outputs—so the solution could be operationalized in clinical workflows.

ACCELERATOR SPOTLIGHT

CGI PulseAI

CGI provides pre-built AI-powered intelligent solutions that use trusted domain data sets to help clients make best-return investments. CGI PulseAI, a hyper-automation, conversational AI solution and decision engine, enables clients to drive growth and efficiency by unlocking the value of enterprise data and business processes.

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At CGI, we're optimistic about AI's potential to improve our world. We envision a future where responsible, human-centered AI intertwines with our daily lives and works in ways that benefit your organization, customers and communities.

By crafting a strategy that aligns with responsible practices and organizational values, building a future-ready AI operating model to power your vision, and implementing an ROI-led, human-centric approach, you'll navigate the seas of change toward a promising future.

Are you ready to catch the next wave of innovation with AI?



“According to customers, CGI’s strengths are the company’s ability to conduct workshops that improve their awareness of AI and its value for their business; apply functional- or industry-specific methodologies and assets to solve their issues; create quality, trusted data sets and pipelines for AI model training; and provide knowledge transfer and training to internal IT and development teams.”

IDC MarketScape:

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Choose the right partner

CGI collaborates with clients to set their AI vision, experiment with tangible use cases, build *future-fit* and adaptive foundations, and scale to accelerate value and operate responsibly. In fiscal 2023, we announced a [\\$1 billion investment over three years to support the expansion of our AI-based offerings](#), the training and hiring of talent, the development of new go-to-market strategies, and the expanded use of AI for operational and delivery excellence.

Ready to accelerate your AI success? [Learn more](#) about CGI's AI services and explore our continued thought leadership around our AI approach.



About CGI

Insights you can act on

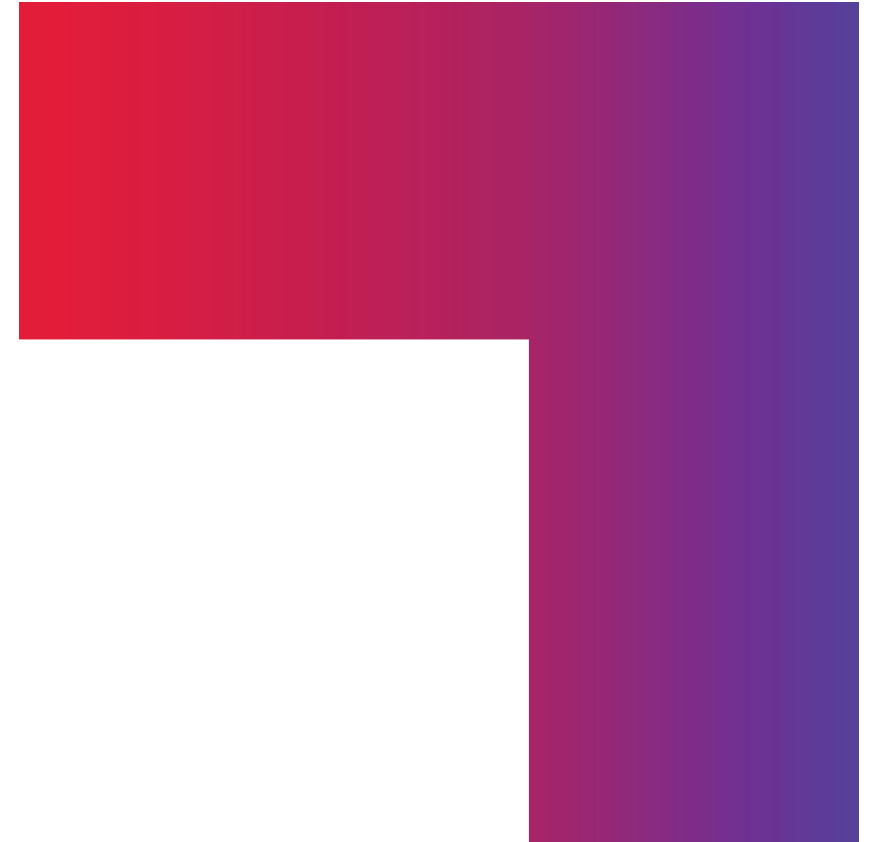
Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

[Start a conversation with our AI experts.](#)

*Source for all statistics: 2023 CGI Voice of Our Clients

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The CGI logo, consisting of the letters 'CGI' in a bold, red, sans-serif font.