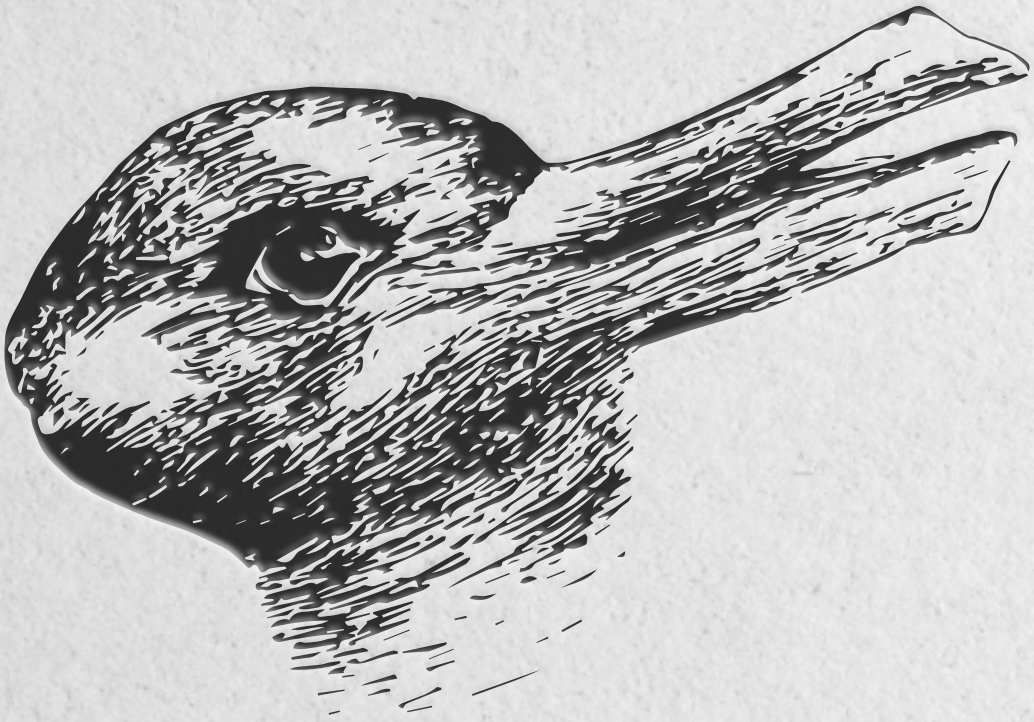
OliverWyman
Forum



How Generative AI Is Transforming Business And Society

The Good, The Bad, And Everything In Between

Executive Summary

Will generative artificial intelligence usher in a golden age of productivity or destroy millions of livelihoods across the global economy? Will it set people onto new paths of personal fulfillment or lead them into cul-de-sacs of loneliness and isolation? Will it lift humanity to new heights or sow the seeds of our collective destruction?

Depending on whom you ask, the answer to all those questions is yes.

In the 14 months since the launch of ChatGPT, it hasn't become clear exactly how generative AI will transform the world, only that it will — with both positive and negative effects on individuals, families, socioeconomic groups, businesses, industries, and societies as it revolutionizes workplaces and reorders personal lives.

Many breakthrough technologies come with pitfalls. Fire allowed humans to gather at night but also burned villages. The automobile revolutionized mobility but brought traffic fatalities. The internet connected people instantly but gave new tools to criminals.

A key difference between generative AI and earlier innovations is that its very creators are warning of the potential downsides. The dual strands of promise and peril are woven throughout AI companies themselves; look no further than the battle for control of OpenAI for an example of the deep ambivalence that generative AI is producing.

But there is opportunity in the ambiguity. The starting gun of the generative AI race was fired a long time ago, but ChatGPT brought a rush of new companies and countries into the race. Business and government leaders will decide how much of the development will be open-sourced and transparent versus closed-sourced and proprietary. Regulators will decide the pace and breadth of the action. Consumers and workers will be central in the technology's adoption and will help determine how quickly the benefits are captured.

With that in mind, the Oliver Wyman Forum set out to thoroughly examine the attitudes, perceptions, and misperceptions surrounding generative AI. In June and November, we surveyed more than 25,000 people across the

United States, the United Kingdom, Canada, Mexico, Brazil, France, Italy, Germany, Spain, China (Hong Kong), India, Indonesia, Singapore, the United Arab Emirates, and Australia.

The findings highlight the confusion many people feel. While 96% of employees said they believe AI can help them in their current job, 60% are afraid it will eventually automate them out of work. Some 55% of employees use generative AI at least once a week at work, but 61% of users do not find it very trustworthy. Of those 61%, 40% would nevertheless use it to help them make big financial decisions, and 30% would share more personal data for a better experience.

Amid the cacophony of opinions and predictions, there is a growing consensus around the world that generative AI's influence on both the workplace and the consumer economy will be massive.

The new AI-conomy

We estimate that generative AI could add up to $20 trillion to global GDP by 2030 and save 300 billion work hours a year.

The possibilities are extraordinary. Fully 96% of the workers we surveyed said they believe generative AI can help them in their jobs. But as generative AI reshapes the workplace, it could place new stresses on organizational structures. In all, the broad category of AI could displace 85 million jobs globally by 2025, according to an estimate by the World Economic Forum. One-third of all entry-level roles could be automated; at the same time, junior employees armed with generative AI may potentially replace their first-line managers, leaving a vacuum in the middle of the job pyramid.

As a result, many workers are growing more anxious by the day. Automation is no longer a narrative of blue-collar workers versus robots. Three in five white-collar workers now fear their roles will become redundant or automated as generative AI's abilities increasingly impact knowledge jobs. Left to fester, this anxiousness could sap morale: According to the American Psychological Association, employees in the United States who are concerned about AI are 68% more likely to feel tense or stressed out during the workday than those who aren't worried, and are more than twice as likely to believe they don't matter to their work community.

Such feelings, in turn, could lead to decreasing engagement and productivity, and higher turnover.

To reap the benefits generative AI can bring, companies should embrace a people-first approach, investing in workers as much as, if not more than, the technology. Employees will need training and support to create sensible and intuitive processes alongside this technology. After all, they are the same ones who will use the interfaces, update the systems, and manage the outputs. Business leaders need to bring them along by listening and addressing their concerns, and up/reskilling their employees along the way.

Radical change for consumers

The generative AI picture becomes a bit clearer when we examine its impact on consumers and its widespread influence across various industries. Healthcare appears to be especially ripe for disruption. We estimate that by 2030, generative AI could save doctors three hours a day, which would allow them to serve an additional 500 million patients globally per year (assuming the productivity gains go to serving more patients). Likewise, we estimate that up to 400 million patients will receive mental health support as a result of generative AI therapy services, democratizing access and sparking global interest. Consumers are especially eager to experience therapy for the first time with generative AI: of the 77% of respondents who have never done therapy with a human, nearly one in three report they would try generative AI therapy in the future.

Generative AI is also emerging as a source of trusted advice. Nearly half of consumers said they would place their faith in AI for big life decisions such as buying a home. Some 36% said they prefer AI over humans for financial advice, demonstrating the breadth of service generative AI can produce, even when solving for traditionally human needs. Consumers are 23% more likely to report that they engage with generative AI financial advisers with the aim of finding connection than they are when they engage with human ones; they are also nearly four times as likely to be looking for a sense of purpose in their personal finances when engaging with AI advisers than when they engage with their human counterparts.

Education is another area likely to be affected. Of the 260 million school-aged children worldwide who do not attend school, we estimate that up to

100 million could gain access to education through generative AI by 2030 due to generative AI's power to provide universal access to individualized tutoring. Apps like Hello History, for example, allow students to engage in philosophical debates with Aristotle or learn about the intricacies of evolutionary biology from Charles Darwin.

Generative AI one day could even change the way people form relationships, for better or worse. Some 14% of consumers said they prefer interacting with AI because they believe generative AI can be more emotionally intelligent than humans. Apps like Replika are redefining companionship, allowing users to craft virtual friends who are always there to listen. One in five consumers said they would go on a virtual date with an AI persona. And almost one in three consumers said they would purchase an AI-powered pet collar that translates animal sounds into language, potentially strengthening the bond even further between pets and their owners.

Risk versus reward is the wrong discussion

Generative AI presents increasingly complex risks for organizations to manage. Many are already well-understood: the potential for hallucination, the vagaries of black-box logic systems, opportunities for cyberattacks, data breaches, improperly trained models, output control, copyright concerns, and on and on. Others haven't been imagined yet; just as humans are developing generative AI systems, so too will the systems change humans, with potentially unforeseen ramifications.

Companies — and societies — must set aside the question of risk or reward and accept a future of risk *and* reward built on a dynamic model of test, measure, and learn. The attitudes and beliefs being formed now among employers and employees, consumers and governments will feed back into the models and help shape this future.

In the pages that follow, we delve deeply into the survey data, pointing out the surprises and paradoxes among the responses, and offer our best view of where generative AI is headed and how it will affect businesses, employees, and consumers around the world.

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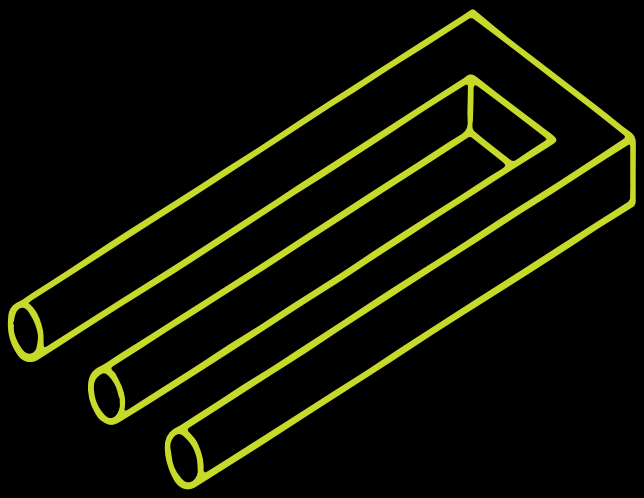


Introduction

RISK AND REWARD / Exploring the dualities of generative AI

Reward/
Risk

Revolution, not evolution

In biology, the punctuated equilibrium model posits that evolution occurs in sudden bursts of explosive progress in between long periods of little to no change. There is a parallel in technology, where incremental progress is occasionally interrupted by an innovation so massively disruptive that it transforms society. Generative artificial intelligence (AI) is one such advancement, reshaping both industries and lives. The question is how.

Generative AI is changing everything, everywhere, all at once

Artificial intelligence has existed for decades, but its popularity soared with the launch of ChatGPT in late 2022. It quickly began reshaping industries, powering daily tasks, and enhancing products that define modern living. What seems like magic are actually deep learning algorithms that enable generative AI to continuously self-optimize without human intervention. For instance, DeepMind's protein-folding AI surprised experts by teaching itself physics and chemistry principles, allowing it to make protein structure predictions much better than human experts could. As these networks advance, the only questions will be how far, and how fast, generative AI can expand its dominion.

Generative AI supplies tools and platforms for innovation to flourish

Generative AI defies one-size-fits-all interpretations with its sheer breadth of applications, from healthcare and finance to education and art. In transportation, there could one day be a generative AI-powered urban sphere that dynamically adjusts signals and routes, improving safety and eliminating traffic jams. In education, generative AI could democratize learning with lessons individualized to a student's unique style, needs, and aspirations. Our survey respondents are eager to see AI-accelerated healthcare advancements as well, perhaps envisioning a future in which personalized diagnoses and treatments are provided

Will generative AI be a force for:

GOOD	BAD	EVERYTHING IN BETWEEN
$20 trillion boost in global economy by 2030, equivalent to 20% of the global GDP today	**50%** of AI experts think there is a high chance* humans will go extinct due to AI	**13%** of people surveyed express interest in developing a romantic bond with generative AI
300 billion work hours saved globally each year, equivalent to an average of roughly two hours per person weekly	**40%** of respondents believe generative AI will worsen inequalities	**28%** of people surveyed believe generative AI can capture the depth of human emotion
500 million additional patients treated by doctors due to time savings from mature state generative AI by 2030	**84%** of employees report exposing their company's proprietary data in the past three months	**56%** of respondents couldn't tell AI-generated fake images from real

* >10% chance (considered "high" because it pertains to existential risks, which have potentially catastrophic consequences)

Source: Oliver Wyman Forum, AI Impacts 2022 Expert Survey on Progress in AI

with near perfect precision. It is already being used across professions that once relied only on people rather than machines. Writers, influencers, and artists now can tap generative AI to help craft their work. But it also has resulted in plagiarism, errors, and job loss. Here, the duality of generative AI is in full effect: The technology promises to eliminate millions of hours of mundane and repetitive tasks but also threatens to eliminate the very authors who benefit from its productivity.

Where do we go from here?

Generative AI's arrival presents humankind with incredible opportunities (and also questions that frequently lead to some answers and more questions). In the chapters that follow, we explore generative AI's transformative impact on the workforce and consumer spheres, the potential opportunities, and hidden risks.

People hold high hopes for AI's potential to expedite human advancement across industries

% respondents who think AI will help improve the following in the next 30 years

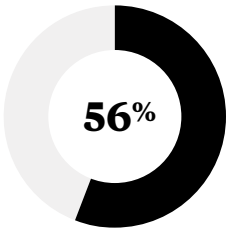
Question: "Which of the following areas do you think AI will help improve most in the next 30 years?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Real or AI? Most can't tell

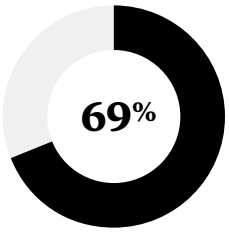
We asked respondents whether they think the following images are photographs of real-life objects/sceneries or created by generative AI

AI



got it wrong

AI



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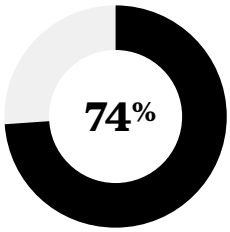
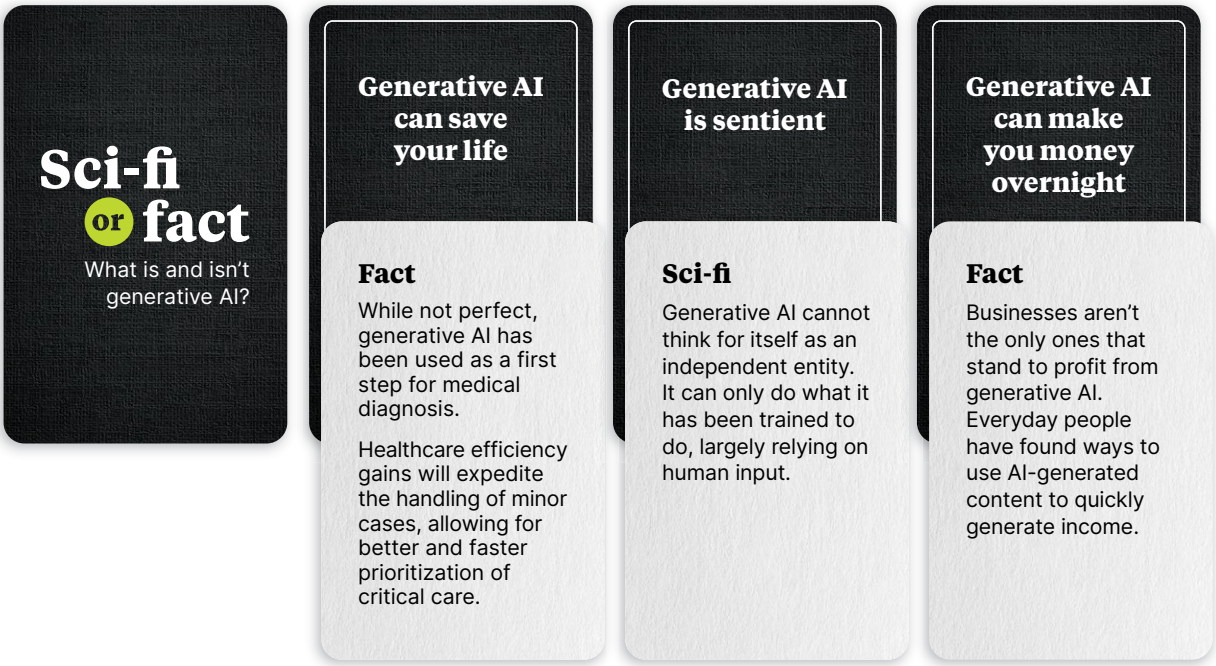
Real



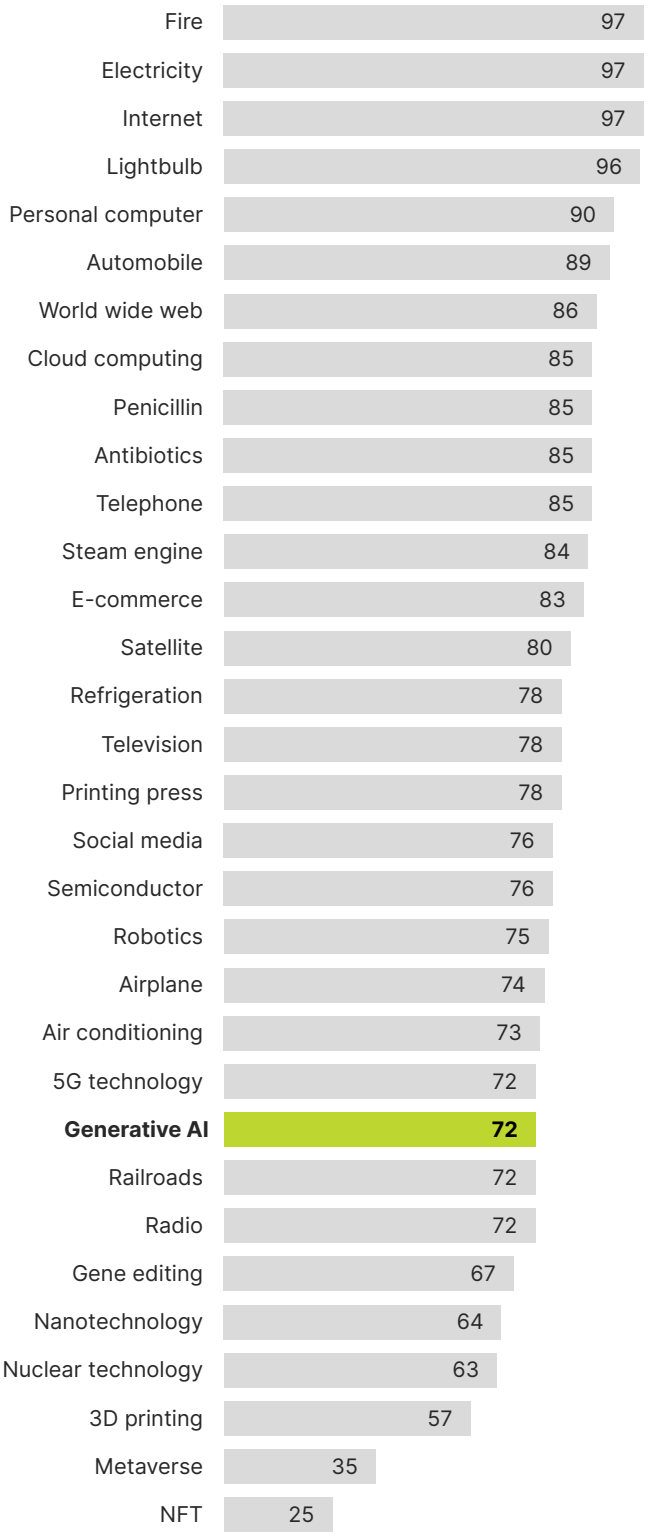
got it wrong

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Sci-Fi or fact: What is and isn't generative AI?



Source: Oliver Wyman Forum analysis



Note: Impact on humanity score 0–100

Source: ChatGPT 4.0

Where does generative AI think it stacks up relative to other innovative technologies?

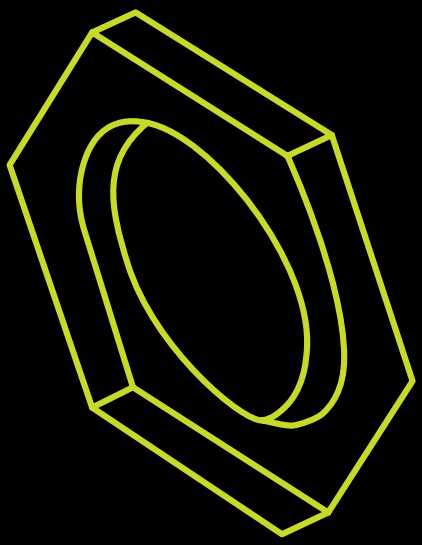
The technology is nothing if not bold. We recently asked the best-known application, ChatGPT, to evaluate generative AI's position relative to the most influential technologies in history. It ranked itself No. 25, between railroads and 5G. Time will tell if this is bravado or modesty.

Equally interesting is how ChatGPT positioned other inventions, declaring e-commerce supreme over air conditioning and cloud computing above the airplane. Ranking each of these technological marvels is a trick question as each has left an undeniable mark on the world. Nonetheless, it's an intriguing exercise: Are these rankings a reflection of the past, a prediction of the future, or a mirror of generative AI's own aspirations?

/**Prompt:** Consider the top 50 most influential technologies in human history based on factors including but not limited to the innovative contribution, economic impact, and social and cultural impact it has had/will continue to have on humanity. Assign each technology a score from 1–100, where 1 is negligible impact and 100 is the most influential of all history.

> AI can give us our wildest dreams and worst nightmares. What a pivotal point for humanity to decide what to do with this and how to treat each other.

Biotechnologist, US (Man, age 58)



Workforce

HOW GENERATIVE AI IS CHANGING THE NATURE OF WORK /

Navigating the transformation to come

/How generative AI is changing the nature of work

Generative AI will likely transform workplaces across the global economy. It is eliciting a range of reactions — from optimism about unparalleled productivity gains and expanded creativity to fears about job loss and people's sense of purpose.

Across industries, generative AI already is augmenting human capabilities. Legal firms use it to synthesize case law; marketers leverage it for targeted campaigns; scientists harness it to accelerate discoveries. However, mass adoption of generative AI does not automatically guarantee mass productivity. Some of the greatest historical innovations — from the printing press and the steam engine to electricity and the internet — revolutionized productivity even as they created new pitfalls. The industrial revolution propelled society forward yet bred employee exploitation and unrest, with owners reaping disproportionate gains. Early automotive advances enriched auto barons while displacing carriage drivers. The whale oil industry crumbled with Edison's lightbulb, and who can forget when Netflix's DVDs (and later streaming) dethroned Blockbuster?

Generative AI doesn't just herald a surge in productivity; it invites a holistic re-examination of the very nature of work and the workforce and societal structures that support it. Business and government leaders need to balance progress with societal needs.

Some legs of this journey will seem familiar and some will be uncharted. Traditional technologies like computers and phones were more deterministic, with clear relationships between the inputs and the outputs. Generative AI's self-learning algorithms bring a whole new world of complexity, leading to outcomes that are trickier to predict and manage.

Then again, companies have spent decades, even centuries, developing and perfecting ways to manage another unpredictable agent: people. Developing generative AI will require a bit of analog thinking alongside the purely digital — some human warmth alongside the cold precision, mixed in with lessons from people governance and management approaches applied to a world of co-piloting with machines. The ability to integrate human-like thinking, skills, and experience into the transformation led by generative AI will set successful companies apart in the years ahead.

IMPORTANT NUMBERS

$20 trillion

(20% boost) to global GDP by 2030

300 billion

work hours saved globally each year, equivalent to an average of roughly two hours per person weekly

More than 50%

of employees say they use generative AI weekly at work

96%

of employees say generative AI can benefit their jobs

60%

of white-collar workers say they fear their roles will become redundant or automated

57%

of employees report they are currently receiving insufficient AI training from their employer

30%

of jobseekers have begun looking for a new role due to generative AI

40%

increase in labor productivity by 2035 across developed countries

Sources: Oliver Wyman Forum analysis, Frontier Economics and Accenture

Potential/ Pitfalls

What is generative AI's productivity potential, and how can employers and employees achieve it?

The potential: a golden age of productivity

Generative AI's impact on productivity could be as transformative as the greatest historical leaps in innovation — akin to the revolutions of the printing press, internet, and the assembly line. Besides the potential effects on the global economy, generative AI could save 300 billion work hours each year as labor productivity soars.

At the same time, by automating routine and monotonous tasks, generative AI can provide workers more time to focus on the thoughtful and creative aspects of work. This emerging productivity paradigm could mark an era in which the value of work is measured by the novelty and ingenuity it fosters, creating possibilities for collaboration between humans and AI and breaking barriers on what we currently define as productivity.

Generative AI's swift march across the global workforce

Even though generative AI has been around for more than 50 years, it wasn't until ChatGPT's launch that employees across industries and occupations embraced it with zeal. It took more than two decades for half of Americans to adopt smartphones, according to Pew Research, and almost twice as long for them to acquire electricity at home, according to the National Park Service. Yet in just months, ChatGPT and new generative AI tools have captured the attention of approximately half of the global workforce.

From nation to nation: generative AI's reach beyond borders

Historically, new technologies like electricity, automobiles, and computers initially were clustered in certain regions, with slow acceptance by other geographies.

FUTURE OF WORK VISION 1

IGNITING A NEW PRODUCTIVITY REVOLUTION

In a not-so-distant future, we encounter Sarah, an investment banker in the bustling metropolis of New York. As Sarah powers up her workstation, ForumAI's voice greets her good morning.

To kickstart Sarah's day, ForumAI reminds her of the monumental task at hand: crafting an investment plan presentation for a high-profile client. At Sarah's command, ForumAI produces a mind map template, prepopulated with suggestions based on successful past presentations. This sparks Sarah's creativity as she shares her investment plan with ForumAI, treating it as a trusted collaborator rather than a mere machine. In response, ForumAI elevates Sarah's ideas by challenging them and exposing hidden flaws. Astutely aware of the ever-changing financial landscape, Sarah requests ForumAI to delve deeper into a section referencing a new regulation. In an instant, ForumAI unveils a trove of documents, affirming the validity of Sarah's argument. Gone are the days of arduous research requests and agonizing waits; Sarah revels in ForumAI's swift and precise assistance. Together, they weave a meticulously crafted mind map, fortified by irrefutable evidence, poised to captivate their audience.

With an outline in hand, Sarah switches her workstation to presentation mode and starts discussing the context and audience of the presentation with ForumAI. The tool, a virtuoso of visual storytelling, adorns her screen with a kaleidoscope of vibrant charts and graphs. In the past, Sarah would have had to allocate hours for junior bankers to draft the slides, followed by painstaking rounds of review and correction. But with ForumAI by her side, the final presentation glistens in no time.

Leaving the office happy with how quickly she created the presentation, Sarah marvels at the increase in efficiency and accuracy delivered by ForumAI. At the rate it enhances her productivity, ForumAI is not a mere tool but a trusted partner.

> **Working will be outdated in a decade. I've been studying AI so I can teach it to do my job as soon as possible.**
>
> Software engineer, UK (Man, age 32)

But generative AI's global uptake has moved as quickly as viral media: Software programmers in India embrace it as readily as construction workers in Thailand or bankers in Brazil do.

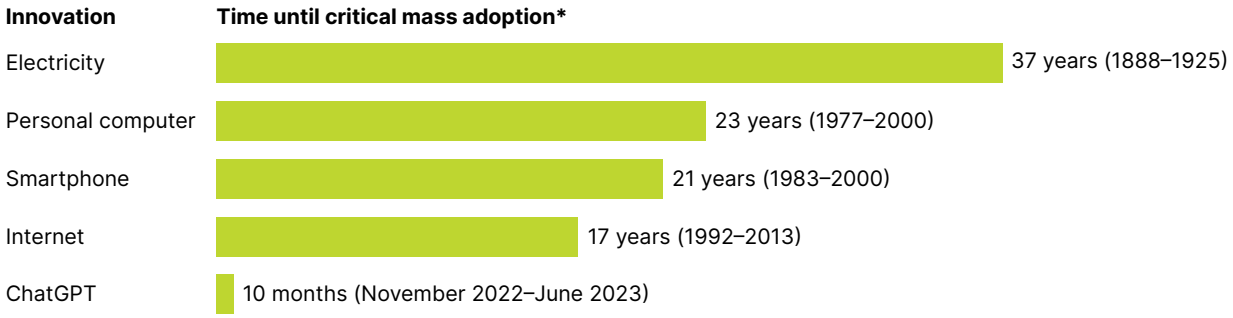
In some nations, generative AI has become so deeply embedded into everyday tasks that it is almost as instinctive for people as checking email in the morning or taking that first sip of coffee before work. Propelled by the top-ranking AI skills penetration as tracked by the Organization for Economic Cooperation and Development, India has catapulted to an 83% weekly adoption rate across all employees we surveyed, slightly higher than the 75% reported by Slack's State of Work Report. Meanwhile, governments in the United Arab Emirates (UAE) and Indonesia are showing strong commitment to generative AI through initiatives such as the National AI Strategy 2031 in the UAE and the National Strategy on AI 2020–2045 in Indonesia. Even in countries with low adoption like Australia and Canada, over a third of employees use generative AI at least once a week, and nearly 10% use it daily.

Generative AI breaks the speed limit across job types

The spread of generative AI is impressive not only in terms of geographic breadth but also speed of adoption across industries. From June to November, generative AI use exploded across all job types, with a 62% increase in use overall across white-, blue-, and pink-collar workers. More than one in three employees in industries with the lowest AI adoption report using it at least weekly, from healthcare workers to public sector officials.

From inception to integration

ChatGPT has reached critical mass adoption faster than other modern innovations

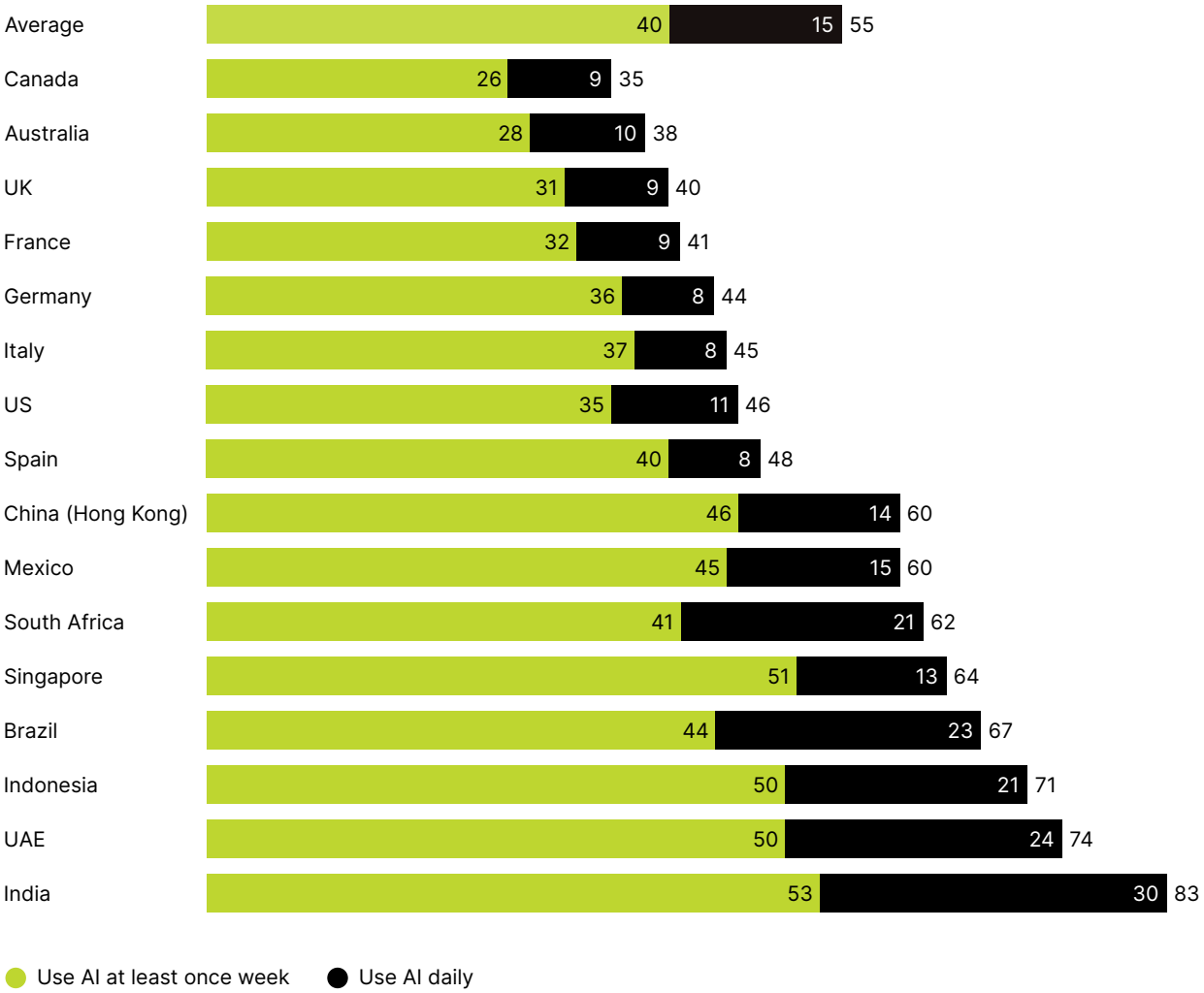


Note: Mass adoption is based on more than 50% adoption in the US, ChatGPT adoption data is from Oliver Wyman Forum Generative AI Survey regarding use of generative AI tools (for example, ChatGPT)

Source: Oliver Wyman Forum analysis

Generative AI use skyrockets across the world

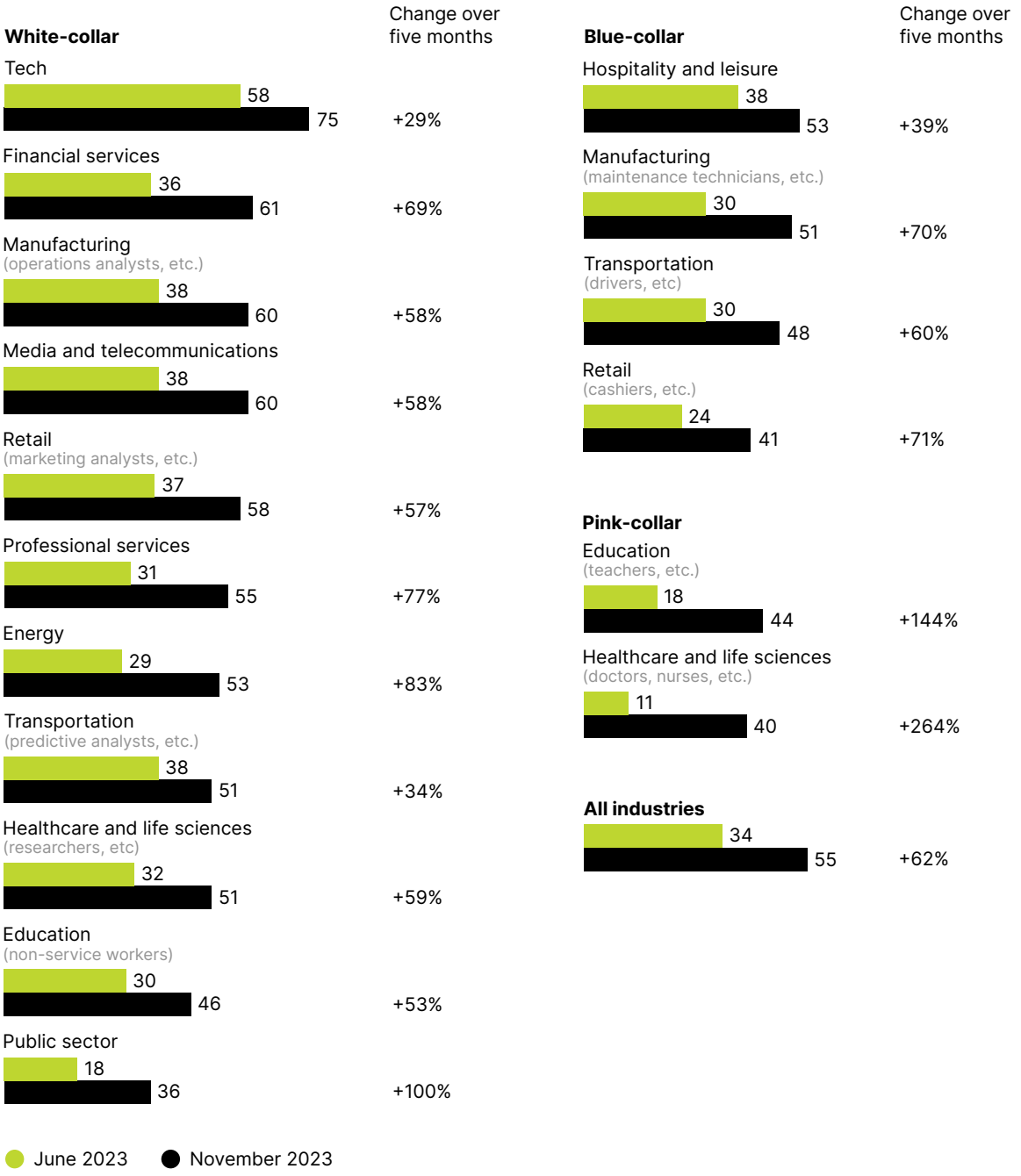
How often are you using generative AI in your current job?
% all employees, by country



Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Generative AI use explodes in the past five months across all industries

How often are you using generative AI in your current job?
% all employees who use generative AI at least once a week by industry and collar



Source: Oliver Wyman Forum Generative AI Survey, May–June 2023 (9 countries, N=6,656), October–November 2023 (16 countries, N=15,227)

> **To advance as a society, everything must be improved. Of course, the day is coming when your job will be automated. That's the cost and benefit of progress.**
>
> Cybersecurity analyst, UK (Woman, age 43)

This spread across all job types is unprecedented. Automation brought significant change to the manufacturing floor, where machines, with their unerring precision and tireless efficiency, replaced blue-collar workers. Meanwhile, white-collar professionals have had a different experience with technology. Their work, often less physical in nature, has historically been insulated from the robot revolution that transformed other sectors.

But generative AI is erasing these boundaries. Adoption is highest among white-collar workers as knowledge work is democratized: Nearly three in five white-collar employees report using generative AI on a weekly basis. It has brought a level of optimization and automation to tasks once thought to be immune to such disruption. Cutting-edge generative AI tools are even revolutionizing "human" tasks such as performance management.

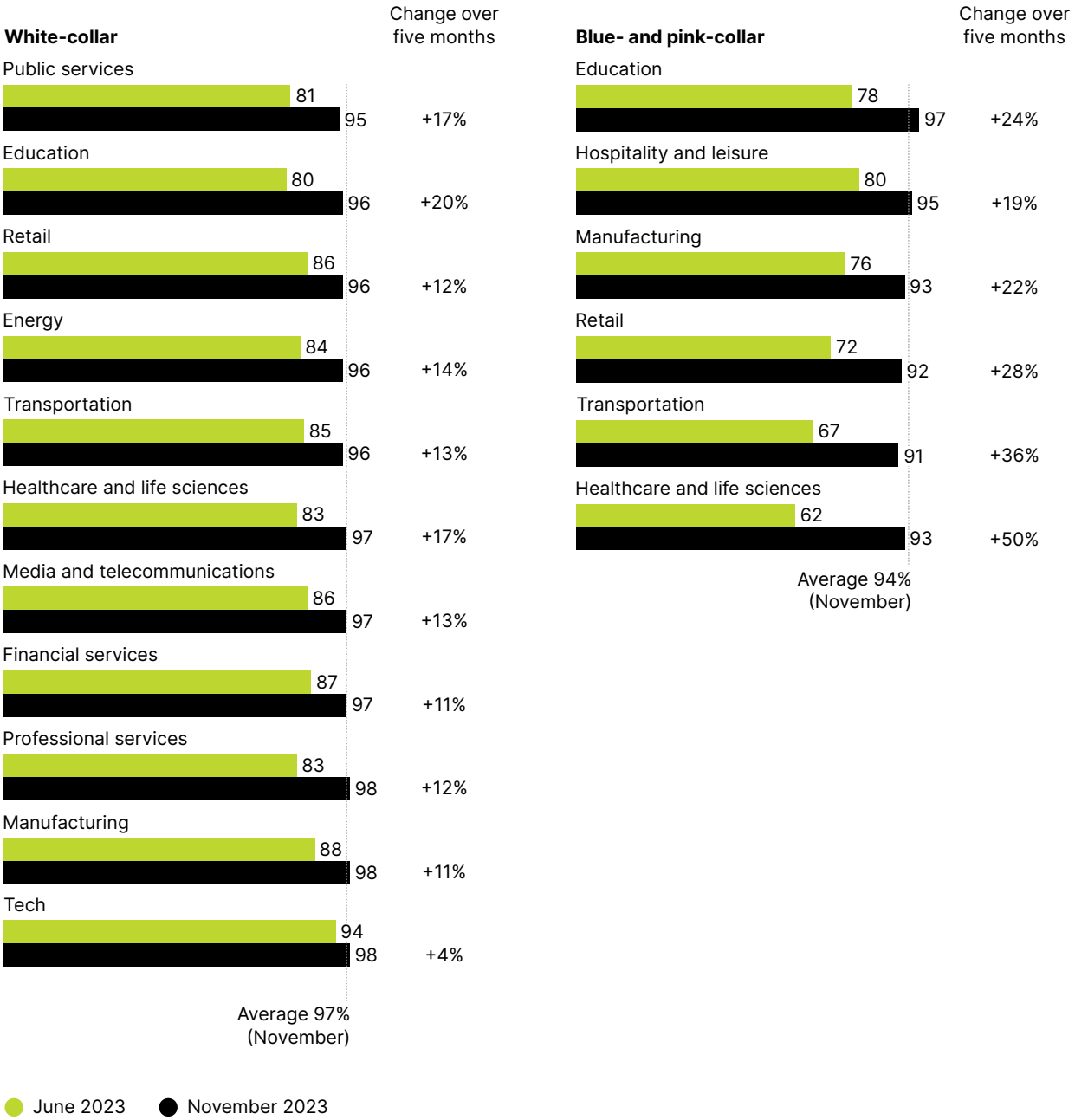
Blue- and pink-collar workers are close behind. Nearly half report using generative AI weekly, defying expectations of lagging adoption. For example, employees in large supermarkets are now armed with personalized AI assistants that help automate the rote tasks of ordering supplies and writing reports. Truck drivers are using generative AI for load-to-driver matching, optimizing which cargo goes on which truck. In manufacturing industries, blue-collar workers are using generative AI to scan long repair manuals and instantly deliver the precise methods needed — a huge improvement from thumbing page-by-page for the right procedures. Generative AI's rapid uptake comes amid widespread employee hopes for productivity benefits.

There has been a broad and substantial increase over the past few months in the belief that generative AI will have a positive impact on jobs, according to our November 2023 survey data. Previously hesitant or skeptical individuals are now a small minority, with most recognizing generative AI's value proposition. In fact, more than 60% of organizations surveyed thought generative AI has the potential to deliver significant cost savings and improvements to operational effectiveness, according to an Oliver Wyman survey of UK financial institutions conducted in partnership with UK Finance. This isn't merely about doing the same things faster; it's about enabling more to get done with less, redefining the potential of what can be achieved in a day's work.

Blue- and pink-collar workers also report having more faith lately: their belief in generative AI's benefits increased rapidly in just a few months to 94%.

Workers across industries agree on generative AI's promise

Respondents who believe AI can benefit them in their current job
% all employees, by industry



Question: "If you are not using AI in your current job, how do you think you could use AI in your current job? If AI is currently helping you in your job, how could you use it more?" % of respondents who selected generative AI could help them with at least one task

Source: Oliver Wyman Forum Generative AI Survey, May–June 2023 (9 countries, N=6,656), October–November 2023 (16 countries, N=15,227)

/Prompt: An editorial photo of people working for an insurance company. Office building interior.

/Job ID: 97d03246-26aa-47de-98ec-92374d92cf8d

/Seed: 2472113755

REAL WORLD EXAMPLES

GENERATIVE AI MAKES ITS WAY TO KNOWLEDGE WORKERS, HOPING TO BECOME THEIR PRODUCTIVITY CHAMPION

With AI @ Morgan Stanley Assistant, Morgan Stanley was the first major Wall Street firm to launch generative AI tools (GPT-4 based) for its employees. It gives financial advisers speedy access to the bank's intellectual capital database of roughly 100,000 research reports and documents, helping them save time in addressing queries related to markets, recommendations, and internal processes. The excitement for its potential is captured in co-president Andy Saperstein's note to employees: "We believe that generative AI will revolutionize client interactions, bring new efficiencies to adviser practices, and ultimately help free up time to do what you do best: serve your clients."

Meanwhile, Marsh McLennan (The parent company of Oliver Wyman and the Oliver Wyman Forum) has recently launched an in-house generative AI tool called LenAI, a private internally-hosted version of OpenAI's foundational models that was designed with regulatory requirements in mind. LenAI extends the capabilities of its underlying AI models by adding tools such as the ability to search the internet, work on a wide range of documents, perform accurate calculations, access information from high quality publications, and more. Altogether, LenAI has boosted productivity by 20% for some employees, saving up to an hour of work per day for many tasks.

Mass adoption ≠ mass productivity

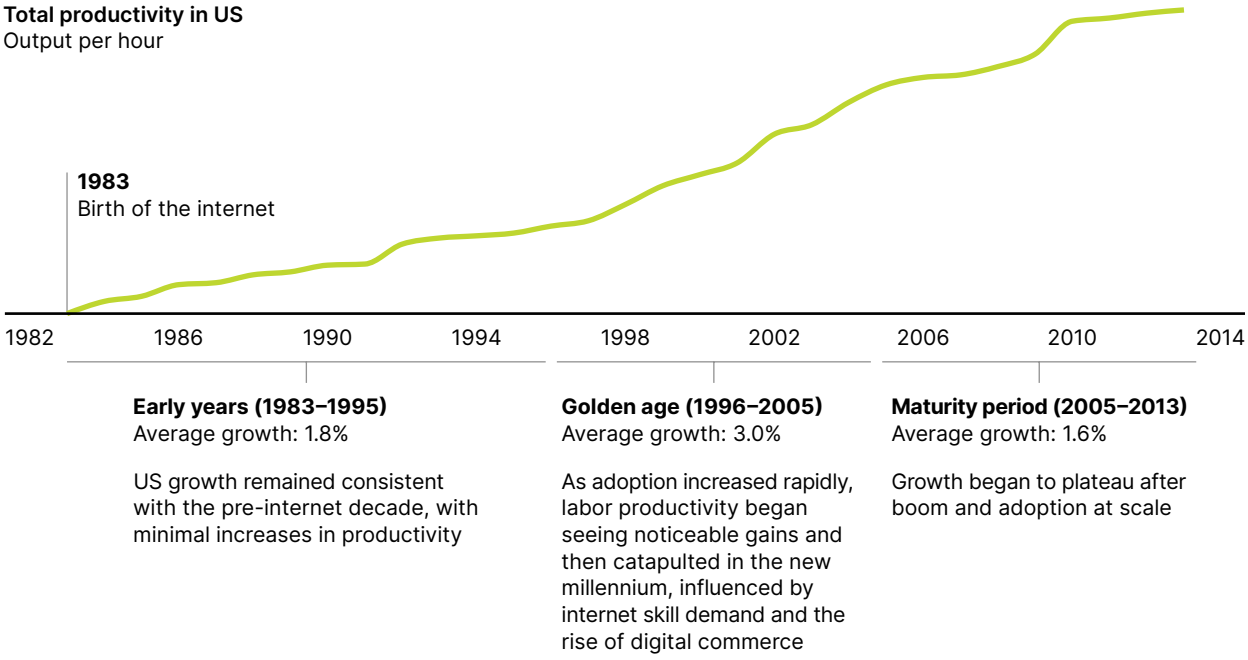
The dramatic uptake in generative AI has been useful for many but hasn't yet resulted in significant productivity gains across the board. Why?

A similar question was raised in 1987, when economist Robert Solow observed a disconnect between the burgeoning computer age and the anticipated productivity gains — an observation now known as "Solow's paradox." Businesses and governments poured money into IT infrastructure, yet the expected leap in productivity was conspicuously absent. This paradox left many wondering if the problem lay not with the capacity of the technology but rather with the manner of its implementation.

Fast forward to the present and the question returns: Could the productivity benefits from generative AI be slow to materialize, in a repeat of Solow's paradox? Our estimates suggest that if generative AI deployment isn't proactively managed, it risks becoming a productivity sinkhole in the short term, potentially squandering up to 200 billion hours of productivity annually.

Solow's paradox suggests that strategic investments, systematic implementation and adoption (and some patience) are all necessary in harnessing transformative technologies. So where are we now?

Birth of the internet saw modest initial productivity impact before becoming a main driver of growth

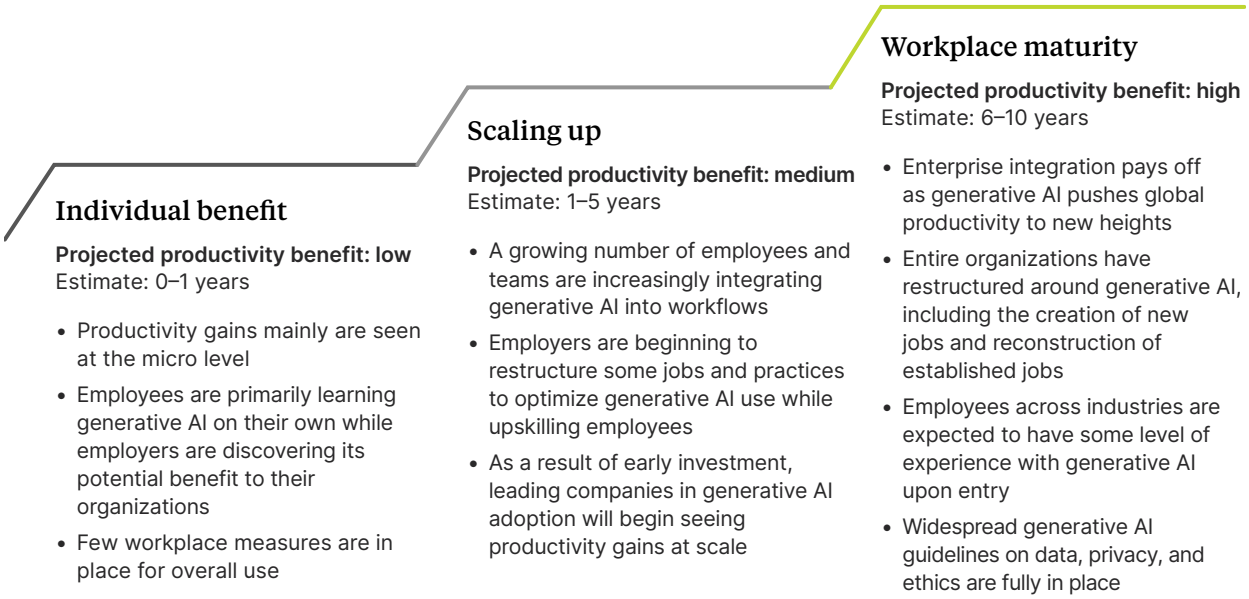


Note: Productivity is normalized to 1983

Source: Oliver Wyman Forum analysis, Federal Reserve Economic Data

Generative AI's potential is vast, yet years of scaling are needed for full productivity benefits

Phases of generative AI's impact on productivity at work



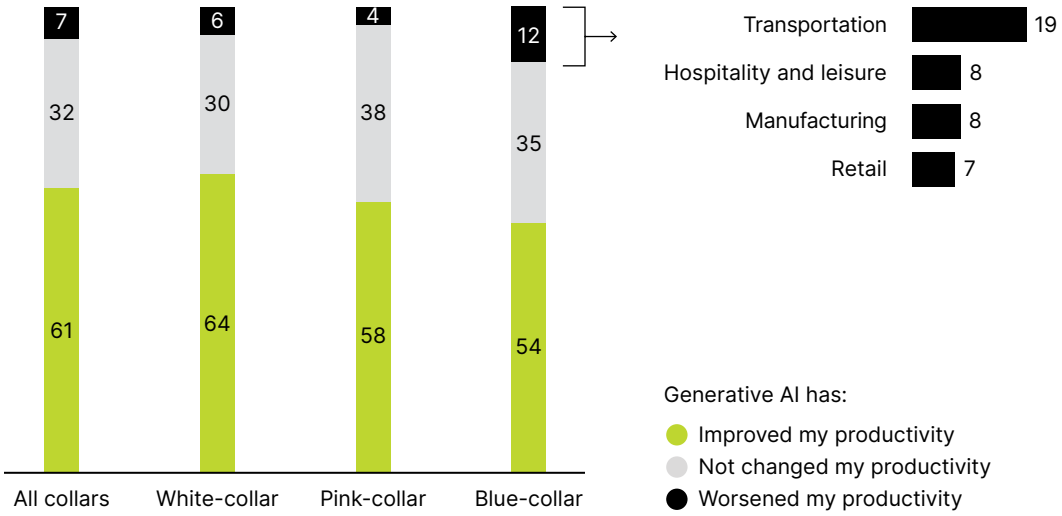
Source: Oliver Wyman Forum analysis

Employees are still in early experimentation mode with generative AI, testing how to optimize their individual ways of working. The bottom-up individual adoption is mostly within existing individual processes and activities, rather than rethinking entire team activities or organizational ways of working. Generative AI's true rewards of large-scale productivity transformation will likely require work to be restructured at an organizational level.

Perhaps that is why we already see a dissonance between some employees' expectations and experiences: While many employees notice an improvement in productivity, more than one-third of generative AI-using employees report no change or a decline in productivity after adopting generative AI. Specifically, more than 10% of blue-collar workers perceive a decrease in productivity, with workers in some sectors, such as transportation, which is heavily reliant on efficiency and time management, reporting up to 19% productivity losses.

Many already report increased productivity with generative AI, though some don't yet see it

How has AI impacted your productivity (such as speed or number of tasks completed)?
% all employees who use generative AI, all collars and industries



Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=12,160 (all collars), N=1,552 (blue-collars)

These figures represent the growing pains of a technological evolution. According to the study by Oliver Wyman and UK Finance, more than 70% of generative AI use cases at surveyed organizations were still in the proof-of-concept or pilot phase. While optimism remains a powerful force, it must be met with a commitment to strategic and thoughtful implementation.

Glamour meets grit

The allure of generative AI's cutting-edge capabilities is undeniable, but the technology itself won't guarantee success — that will come down to the unglamorous, meticulous processes underpinning its development, testing, and implementation.

The good news is that many of the current challenges with AI that employees identify are issues that can be potentially overcome with process changes. Many report incomplete knowledge as a large barrier, whether that is their own proficiency with the technology overall (22%) or learning how to prompt, review, and adapt the output (20%), highlighting a gap that needs bridging across all sectors of the workforce.

Moreover, productivity is sometimes limited because of imperfect collaboration. In the context of blue-collar work, where the orchestration of tasks is paramount, 22% of those reporting no productivity improvement with generative AI point to collaborator inefficiency.

Current obstacles to productivity point to opportunities for education

Select statements that you agree with regarding AI's impact on your work-life balance and/or productivity

Top reasons why generative AI is not improving productivity

% selected among all employees who report generative AI worsened or did not impact their productivity

Learning about AI adds stress and takes time because I am **not proficient with the technology**	**22%**
AI tools give me **unsatisfactory output,** so I spend **extra time reviewing, regenerating output, or editing** the output	**20%**
Following company guidelines for AI lengthens the process to complete tasks	**20%**

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries

So how do we drive more efficient adoption?

Companies need to consider both what individual workers need and how the anatomy of work will change.

When individual workers were introduced en masse to generative AI tools such as ChatGPT and DALL-E, the technologies were so intuitive that many first-time users assumed they (or their employees) could teach themselves. However, based on our data, less than one-third of generative AI users report employing best practices for use: Only 32% of generative AI-using employees say they use prompt engineering, and only 26% say they clean data before use with generative AI tools. Alarmingly, almost one in five report not using any best practices at all.

While this limits labor productivity, it provides an opportunity for targeted education, skill development, and recognition of workers who are upskilling themselves and their peers. Enabling a culture of informed enthusiasm and application, in which generative AI best practices are embedded in workflows, is critical to drive tangible labor productivity.

> **I honestly don't really know how to use all the AI things, so I just use it as a better search engine to ask questions. I hear people talking about using it at work and making it do all these complicated things but I have no clue how they do it.**
>
> Program manager, US (Man, age 33)

The second parallel step has to do with the anatomy of work. Leaders often focus on how generative AI and other technologies can reduce headcount. As a result, efforts to adopt generative AI may crash on the rocks of poorly conceived work design, potentially leading to a repetition of Solow's paradox.

As businesses adopt generative AI, they should prioritize the work and not the technology. Organizations should first seek to understand the nature of work, then identify specific tasks where generative AI can enhance efficiency and thoughtfully redesign work processes based on the greatest opportunities for generative AI to drive outcomes. For example, generative AI can help substitute highly repetitive, rules-based work, creating room for greater human creativity, empathy, and critical thinking.

Leading with work can enable organizations to realize significant economic and other gains since optimal solutions for generative AI adoption are often visible only at the task and skill level. By making work design a core capability of the organization and continuously redesigning work to achieve the optimal combinations of talent and technology, businesses and their workforces can realize the full value of generative AI.

/Prompt: An editorial photo of the writers strike in Los Angeles.
/Job ID: bfb1ee27-e864-4e5d-9313-faa65b433b76
/Seed: 1570957853

REAL WORLD EXAMPLE

GENERATIVE AI GENERATES A STRIKE

In 2023, more than 170,000 writers and actors went on strike to protect their jobs against generative AI. Generative AI was a driving force behind a historical joint walkout between Hollywood writers and actors, resulting in the loss of 45,000 jobs and an estimated $5 billion in revenue.

In addition to ongoing labor disputes over streaming residuals, the two groups went on strike against studio usage of generative AI for writing and digital recreation, viewing it as an additional tool for studios to weaken pay.

The writers strike, led by the Writers Guild of America, ended in the most stringent restraint of generative AI usage, restricting it from training on writers' materials, being used for source material, or creating or revising scripts. On the digital replicas of actors, an agreement was reached that production companies must seek consent from actors before deploying such technology.

Catalyst/
Collapse

Reinventing workforce structures

Reimagining a new job pyramid

As far back as the Elizabethan era and the Industrial Revolution, people anticipated and worried about how machines would affect their work. In 1850, a group of tailors in New York City threatened to strike unless their employer stopped using new sewing machines. Newspaper articles bemoaned the fate of the "poor girls" who would no longer make a living by sewing bags to store salt, and advised seamstresses to focus on more complex work that could never be touched by machines — sewing dresses. As we look back at this episode we might laugh at the specific advice, but the broad situation is all too analogous to what workers face today: We may not know exactly what parts of the workforce will be disrupted or how, but we know that there is about to be a shift. How do we predict or prepare?

Generative AI can transform the fundamental structure of work. The effects of generative AI will be felt across all job levels, reconfiguring the job pyramid and reorganizing the skills hierarchy. Experts generally agree that entry level employees will likely be the first to experience the impact of generative AI. But junior employees today think that only a third of their roles could be automated, which is 25% less than what senior employees believe.

GENERATIVE AI BY THE NUMBERS
Impact on workforce structures

$1.7 trillion

spent worldwide by employers to train employees on generative AI use by 2027

60%

of employees will need reskilling or upskilling on AI by 2027

85 million

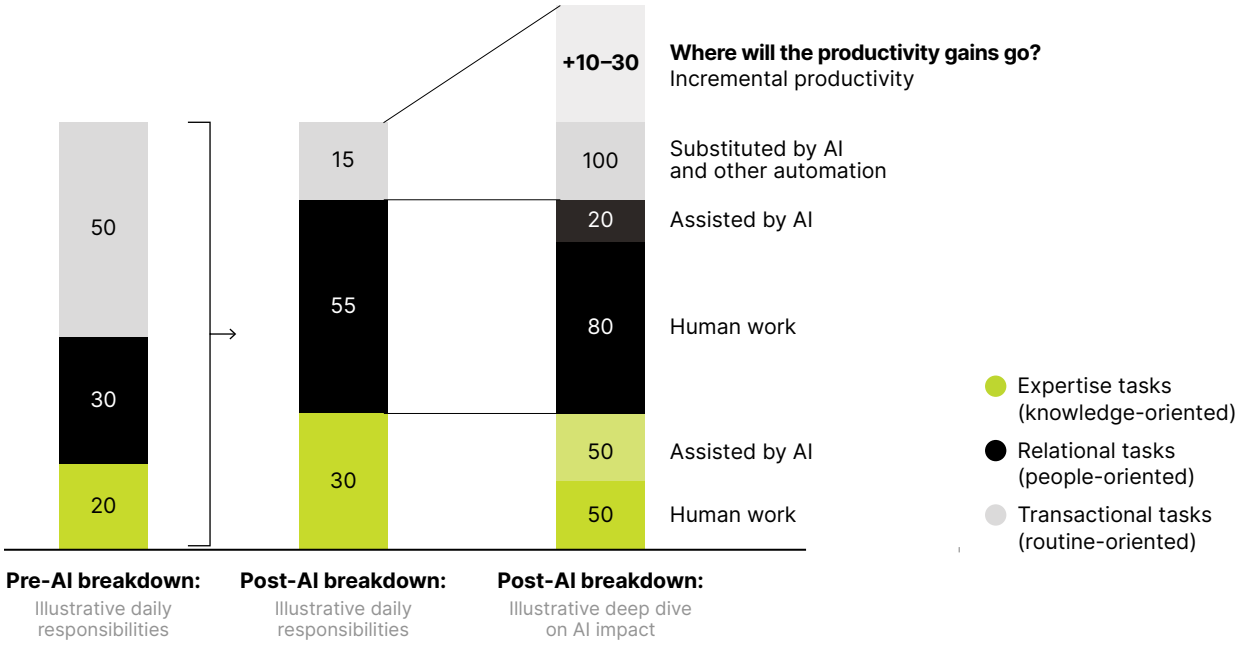
jobs displaced globally in the next few years due to AI

Source: Oliver Wyman Forum analysis, World Economic Forum

As some experts look at how employees' current tasks will be affected by generative AI and automation, they divide the work into three types: transactional, relational, and expertise-related. Much of our transactional work will be substituted by a combination of robotic process automation, machine learning, and generative AI, while work requiring deep expertise or human collaboration will increasingly be augmented. The combination of these changes is likely to generate incremental productivity gains of 10–30%, according to authors Ravin Jesuthasan and John Boudreau as explored in their book "Work Without Jobs". The question for leaders and governments is what will we do with these gains? Will we take them to the bottom line of corporations as we have done for much of the last 60 years, or will we share the gains with the workforce and communities, creating a new management and labor compact?

AI and automation will transform workers' core tasks, unlock productivity gains, and affect 80% of today's jobs

Illustrative breakdown of core tasks

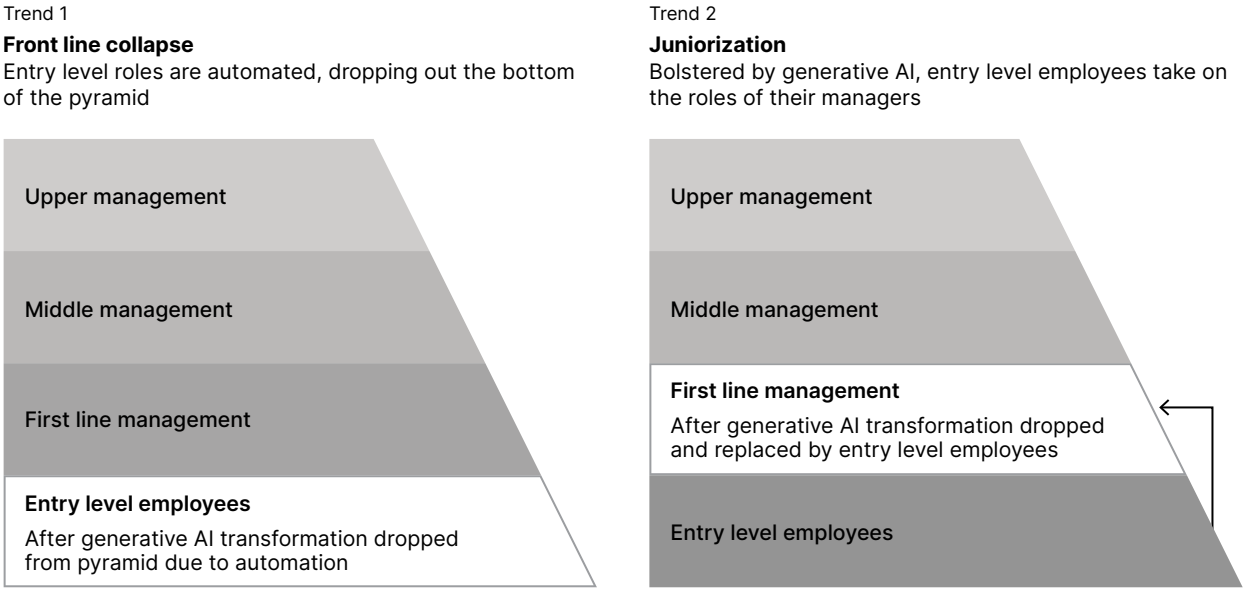


Source: OpenAI, OpenResearch, the University of Pennsylvania, Brookings Research, Goldman Sachs Research, Jesuthasan and Boudreau

Workforce restructuring trends at play

Which job levels are most at risk of automation from generative AI?

Generative AI may reshape the job pyramid, but not uniformly for all workers…



Source: Oliver Wyman Forum analysis

Entry level and front-line impact

Let's imagine a hypothetical global airline called AirConnect, known for its commitment to innovation and superior customer service. In response to the evolving workforce landscape, this airline expects to implement generative AI solutions. Its plan? To replace a significant portion of customer service representatives with generative AI-powered chatbots, autonomously capable of handling customer inquiries and aiding in bookings.

Entry-level customer service employees at AirConnect might not be aware of the imminent change. Under the radar, AirConnect's engineers are developing a generative AI chatbot equipped with skills that could soon surpass their own. While the metamorphosis of generative AI is underway, it is imperative to convey this transformative vision to employees. The challenge is not unique to our fictional airline; it's a realistic possibility of what real-world employers will face as generative AI reshapes the workforce.

Junior employees are at risk of being blindsided by the impending generative AI automation storm

How much of your job do you think could be automated using AI?

Job level	% of own job employees think could be automated	Expert views on automation
Upper management		
Upper management — white collar (for example, business owner, managing director, department head, CEO, CFO, COO)	52	Low
Business leader — blue collar (for example, store/shop owner, regional manager, franchisee)	53	Low
Upper management — pink collar (for example, department head/chair, superintendent, dean, director, senior executive)	42	Low
Middle management		
Middle management — white collar (for example, project leader, branch manager, team leader)	43	Medium
First-line manager — blue collar (for example, foreman, store manager, shift leader)	46	Medium
Specialized professional — pink collar (for example, psychologist, physician, therapist, professor, nurse practitioner, lawyer)	31	Low
First line management		
First-line management — white collar (for example, supervisor, junior manager)	38	Medium
Specialized worker — blue collar (for example, technician, electrician, mechanic, dispatcher)	41	Medium
Mid-level professional — pink collar (for example, RN, PA, early childhood educator, subject teacher, human resources)	33	Medium
Entry level employees		
Non-managerial employee — white collar (for example, entry-level, analyst, associate)	35	High
Employee — blue collar (for example, host, server, construction worker, cashier)	36	High
Support and administrative staff — pink collar (for example, receptionist, medical assistant, maintenance staff, clerk, domestic worker)	38	High

Note: Aggregated views from variety of business and generative AI experts, such as Pew Research Center, Goldman Sachs Economic Research, and Aquant

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=15,227

Collapse of the middle... manager

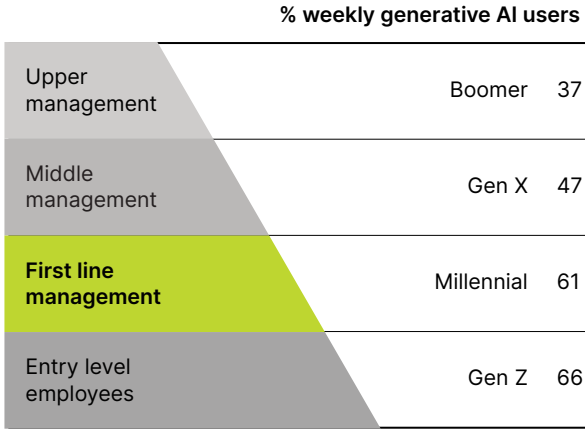
As generative AI replaces some front-line roles, it will disrupt the pipeline of manager roles, akin to the "collapse of the middle" in the job pyramid. We can likely expect generative AI and AI more broadly to accelerate the timeline for climbing the career ladder as tasks typically given to entry-level employees are streamlined by AI.

At AirConnect, generative AI-powered customer service agents can tackle the mundane tasks of booking flights, providing flight information, and resolving routine issues. This transformation could enable some junior customer service agents, who once bore the weight of these routine tasks, to move up. Our data show that two in three Generation Z employees now report using generative AI on a weekly basis, 78% more than boomers. At AirConnect, this means junior employees could embrace new roles as "customer experience managers," charged with tasks that build on AI-powered functions, such as resolving intricate customer requests, pampering VIP passengers, and orchestrating solutions for any unconventional travel challenges. In essence, they would take on responsibilities that were once exclusive to their supervisors.

Armed with generative AI, entry level employees can take on more senior roles

Illustrative graphic

Younger employees are **more likely to be using generative AI** at work, paving the way to **take on first line management roles**



Note: Management tiers are graphically mapped to generations for illustrative purposes only
Question: "How often are you using AI in your current job?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Empowering junior employees could come at the expense of middle managers, who traditionally serve as candidates for upper management. With the rise of generative AI, AirConnect and other realworld organizations could find themselves confronting an unexpected conundrum: how to adequately develop its workforce for senior leadership.

FUTURE OF WORK VISION 2

EMPOWERING WORKERS TO REACH ABOVE AND BEYOND

While investment banker Sarah dreams away in the bustling heart of New York City, chemical plant operator Karl in Mannheim, Germany, logs into ForumAI, the plant's advanced generative AI system.

As soon as the system boots, a message pops up from his boss, which ForumAI reads in the boss's voice: the plant is planning to debut a groundbreaking new chemical to the production line, and Karl should take actions to prepare. As Karl waves the message away, ForumAI anticipates his next ask and shows him a 3D model of the new chemical composition, inviting Karl to immerse himself into the specifications. Intrigued, Karl instructs ForumAI to conjure myriad production scenarios, and ForumAI instantly fills up the screen with a vibrant array of charts, each telling a visual tale of shifts in production rates and inventory levels. In the past, orchestrating the introduction of a novel chemical required collaboration between numerous highly educated engineers. Now with ForumAI as his ally, Karl is at the helm without the need for an advanced engineering degree, navigating these intricate scenarios alone with confidence.

As Karl wraps up this first task, ForumAI flashes a crimson warning, signaling an impending failure of a cooling tank valve based on its analysis of maintenance history. Gone are the days of laborious routine manual inspections, scrutinizing each component of the cooling tank. Instead, Karl simply commands ForumAI to initiate a preventative maintenance order for the valve. Time saved, Karl delves into a more creative and strategic endeavor: unraveling the enigma behind these recurring valve failures. Upon Karl's request, ForumAI unveils its analytical interface, projecting a mesmerizing 3D visualization of the cooling tank. Karl's critical thinking skills ignite as he navigates the immersive 3D projection, and he soon discovers how the valve struggles to stand against constant high pressure. Delighted with this revelation, Karl schedules a meeting with his boss for the next day to discuss a switch to different valves.

As Karl heads home, he reflects on his profound partnership with ForumAI. The technology liberates him from the shackles of mundane routine work, empowering him to focus on more captivating tasks that were once the domain of his supervisors. ForumAI has leveled up Karl's work and skillsets, empowering him to make greater impact in the workplace.

The great reskilling — an employer and employee challenge

Entering the reskilling revolution

Executives believe 40% of their workforce will need reskilling or upskilling within the next five years due to generative AI, as reported by the IBM Institute for Business Value, while almost all surveyed employees (98%) believe they will need it. Those sobering figures suggest that anywhere from 1.4 billion to more than three billion people globally will need to learn new skills. Not only is the demand for fresh skills changing, but the expected half-life of any newly learned skill is now less than five years, according to Harvard Business Review. This presents a massive challenge for employers, employees, and public policy officials concurrent with a redefinition of job structures for the workforce of tomorrow.

The impact, however, is far from clear and uniform. Some employees will navigate uncharted territories, embracing new roles and workflows that don't yet exist — managing the outputs produced by generative AI and delving into quintessentially "human" aspects of work. Others will learn generative AI skills that enable them to increase their productivity and automate tasks that were once arduous and repetitive.

Although companies and workers agree that technical and soft skills are important, they disagree on what those priorities should be. For example, surveyed employees rank AI and big data as their top reskilling priority, and almost three-quarters of them want more learning opportunities around these. However, employers rank AI and big data fourth behind soft skills such as creative thinking, leadership, and social influence, and only 41% of employers prioritize these crucial skills, according to the World Economic Forum.

Employees are most focused on training in AI and big data, while employers place emphasis on analytical thinking

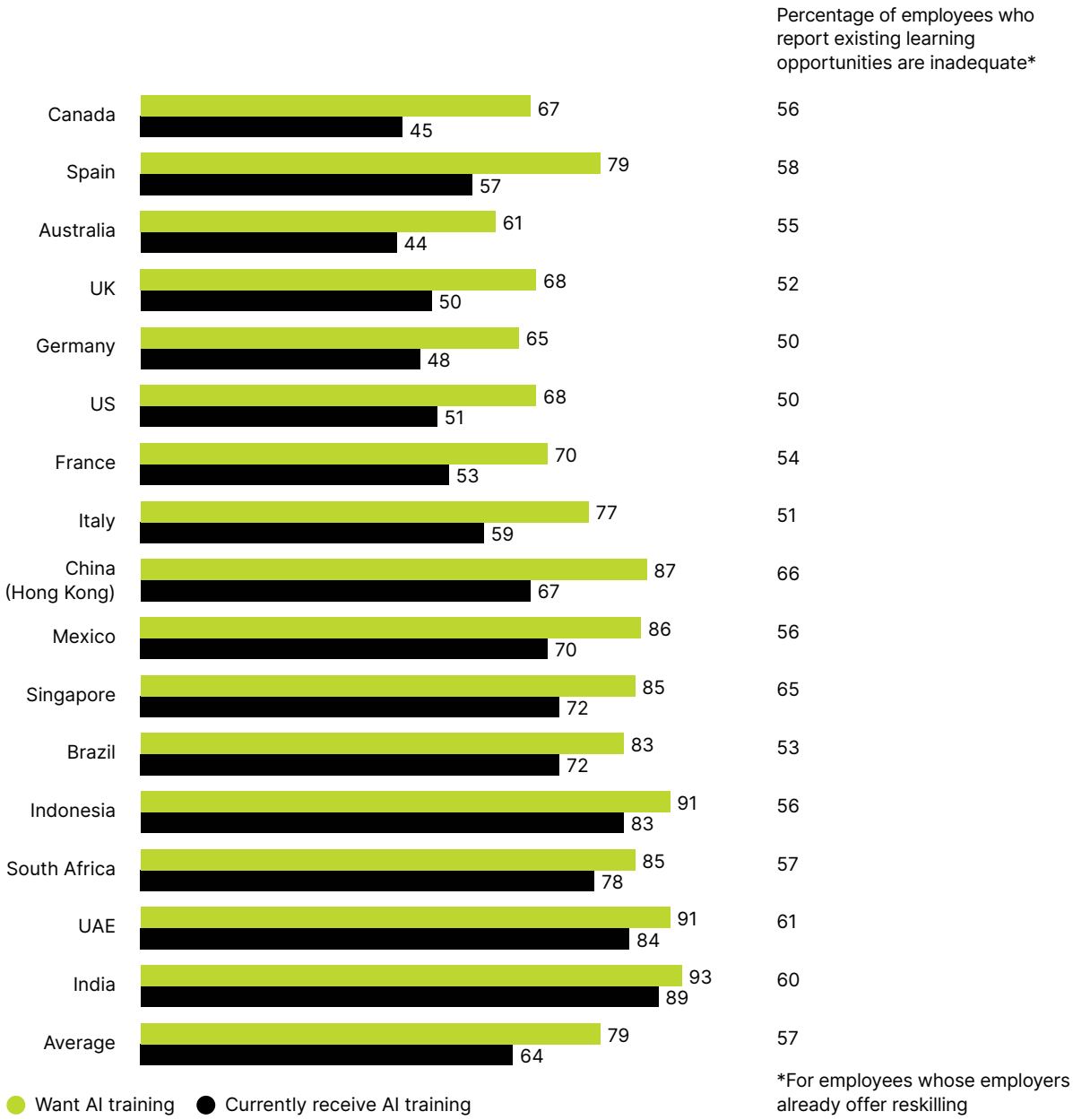
Ranking	Employee reskilling priorities	Employer reskilling priorities
1	**AI and big data**	Analytical thinking
2	Creative thinking	Creative thinking
3	Analytical thinking	Leadership and social influence
4	Leadership and social influence	**AI and big data**
5	Technological literacy	Curiosity and lifelong learning

Question: "Which of the following skills do you think would be important for you to receive training/reskilling efforts in over the next five years?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=15,227. Compared to organizations' training and upskilling priorities over the next five years (World Economic Forum).

Employers are behind on quantity and quality of generative AI learning opportunities

How are employers addressing employee demands for generative AI learning opportunities?
% gap between employee demand for training vs employers currently offering learning opportunities (as reported by employees), by country



Question: "What types of AI training does your employer currently provide, and what types of training do you want your employer to provide?", "I am receiving insufficient AI training/education from my employer — percentage agree"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033 and N=10,242

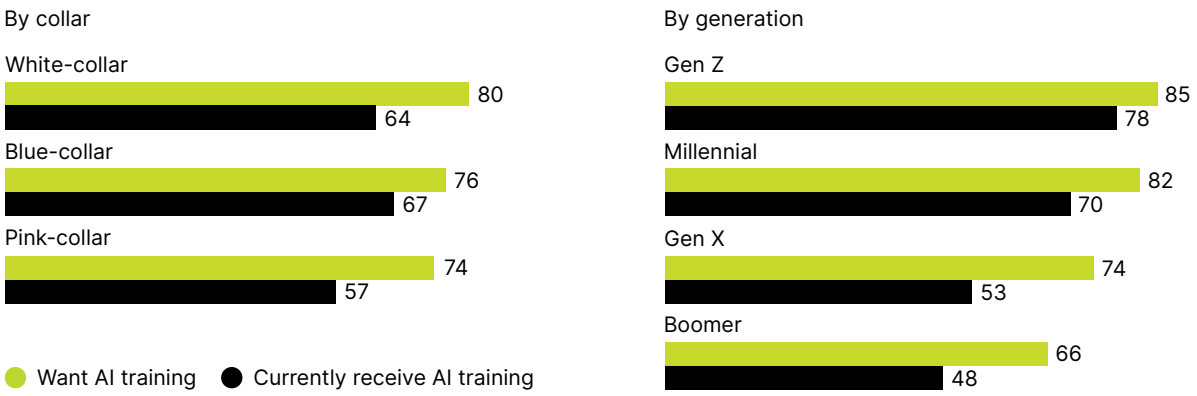
This mismatch between what employees want and how much training their employers think they need is significant. Almost three out of five employees who receive reskilling opportunities report that they are inadequate, underscoring the growing discontent. In India, where the gap between employee demand for generative AI reskilling and employer offerings is smallest, 60% of surveyed employees nevertheless say existing learning opportunities remain inadequate.

This mismatch is consistent from knowledge workers to skilled laborers, with the largest gap occurring among pink-collar workers. Those surveyed are 30% more likely to desire reskilling opportunities in generative AI than they say their employers are willing to provide them. This gap extends to white-collar and blue-collar employees, and Gen X and boomer employees as well.

Gen Z employees, who are digital natives, along with many millennials, proactively seek opportunities to bolster their generative AI expertise. And while two in three boomers report they are seeking AI reskilling opportunities, debunking any notion that older workers may be averse to embracing new technology, they also say they are the most likely to lack access to generative AI learning opportunities due to lack of employer resources. The path to exposure and learning, as well as full upskilling and reskilling, will not look the same for every worker, underscoring the urgent need for employers across all industries to reprioritize and invest in their learning and development and broader reskilling agendas.

Employees of all ages and job types demand more generative AI learning opportunities

% employees who want AI training versus currently receiving AI training



Question: "What types of AI training does your employer currently provide, and what types of training do you want your employer to provide?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=15,277 (by collar), N=16,033 (by generation)

> **Because I'm so new to using AI, I don't even know all the practical applications. So I think training would be the big thing. What are the practical applications of AI in a role like mine and in a company like ours? What are we not doing that we could be doing?**
>
> Consultant, US (Woman, age 56)

Preparing today for the workforce of tomorrow

If various estimates are correct, in the coming decade billions of workers will need upskilling and millions may need to be entirely reskilled. How do we address this complex business and societal challenge to enable a smooth labor force transition for not only those acquiring new skills but for those changing occupations?

Earlier, we introduced the notion of work design as a core capability of the organization, ensuring the optimal combinations of generative AI and human work. To navigate the transformative landscape to come, this capability should be accompanied by investments in talent development and deployment, requiring organizations to have a strategic and comprehensive approach to reskilling and upskilling initiatives.

Recognizing that one size does not fit all, businesses should curate learning resources specific to each role, tailoring experiences to individual needs. Simultaneously, employees can enhance proficiency and confidence in working alongside generative AI through directly applicable training, such as hands-on workshops.

Organization leaders should champion reskilling initiatives to ensure employees are aware of their importance. At the same time, every employee should be empowered to be their own leader in the reskilling process, including a renewed focus on both the hard skills needed to wield generative AI tools and essential soft skills such as communication and critical thinking. Collaborating with employees in decisions about training can encourage ownership over the learning process and ensure reskilling is effective for every employee.

Metamorphosis/ Meltdown

Transition with heart: How can employers chart a "humane" journey into the generative AI epoch?

Charting a humane workforce journey

How to transition with heart?

As we consider the vast changes that may be ahead for workers and for the structures in which they conduct their jobs, it is natural to look back at similar changes that have occurred in the past. And indeed the challenge of humane workforce transitions is not unique to the present day or to AI specifically; labor movements have long been linked to the uncertainty associated with technological advancements. For example, in Lordstown, Ohio, in 1972, assembly workers at General Motors were pushed to keep up with new robots, triggering a 22-day strike that cost $150 million, according to The New York Times. Similarly, past technology adoption by a global retailer led to a strike in South America. Employees demonstrated in response to automation's impacts, including decreased headcount and increased workload for the remaining employees. Ultimately, the retailer needed to change its automation strategy, centering change on employee well-being.

The recent strikes in the entertainment industry and elsewhere might suggest that AI will inevitably prompt similar responses from across the workforce. But technological change doesn't always lead to unrest. For instance, when IKEA rolled out a new chatbot to handle customer inquiries in 2021, it also embraced a strategy of reskilling nearly 10,000 call center employees. These employees, who no longer needed to answer routine customer questions, transitioned to remote interior design adviser roles that have enabled a new source of revenue for the company.

These contrasting outcomes underscore the critical importance of adopting technology with a human-centric approach. By human-centric we mean actions that focus both on the rational dimensions of technology change — elements that optimize and enable the implementation of the technology itself — but also on the emotional aspects of change, which include empathetic leadership, enhancement of an organization's cultural elements, and employee training.

Employees who experience a new technology as something that helps them to grow are much more likely to feel comfortable and to contribute fully to their workplace, and employers who are prepared to listen and motivate employees are more likely to avoid disruptions and even to expand. But as our assessment of employer and employee sentiment shows, many workplaces still have steps to take in order to achieve this humane transition.

Employer optimism is loud, employee concern is louder

Employees across industries agree more than ever on generative AI's potential for the workforce, but at least half of surveyed employees don't trust it. Almost one in three say they are stressed about using generative AI at work, and two in five say they are uncomfortable with generative AI tracking their work activities. Part of this owes to a perceived lack of communication and trust around generative AI plans as well as the lack of understanding and training described earlier. It may also be due to a disjuncture in the perceived readiness of organizations to adopt generative AI. Some 70% of non-CEO executive teams don't believe their organization is ready to adopt generative AI responsibly, but 50% of CEOs say they are already integrating it into their products and services — suggesting the existence of workplaces where people are already transitioning to AI in a way that makes them uncomfortable.

This discomfort with the transition to AI may also be contributing to employees' views about work more broadly. The American Psychological Association reported that US employees who expressed worry about the broad category of AI at work were 57% more likely to report feeling a decline in productivity and motivation than unconcerned employees. They were also much more likely to feel that they don't matter to their employer or work community. These findings do not necessarily mean that worries about generative AI have caused worker malaise, but they do suggest an undercurrent of concern and disaffection that runs counter to the kind of purposeful change that would lead to effective adoption of AI.

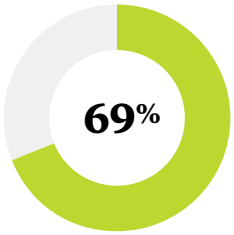
> **At my workplace, a lot of people believe that AI tools are making you not think. Am I really not using my brain? Am I going to become redundant? Am I just doing what the tool is asking me to do?**
>
> Project manager, India (Woman, age 26)

Contrasting employer versus employee views on generative AI

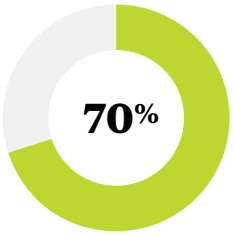
While some CEOs are eager to adopt generative AI...

...employees are more skeptical and cautious

Generative AI adoption readiness



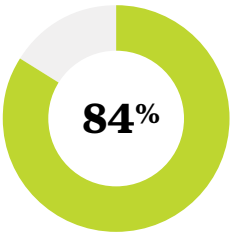
of CEOs see **broad benefits** from generative AI across the organization



of non-CEO executive teams **don't believe** their **organization is ready** to adopt generative AI responsibly

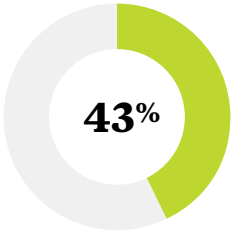
AI process controls

of CEOs report they **are already integrating generative AI** into products and services

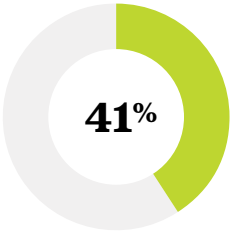


of AI-using employees may have already **leaked company data** to public generative AI tools

Decision making with generative AI



of CEOs are currently using **generative AI to inform strategic decisions**



of employees have seen generative AI used to **replace human decision making** at work in a way that made them **uncomfortable**

Source: Oliver Wyman Forum analysis, IBM annual CEO study

Employee concern about AI is correlated with lower engagement and performance

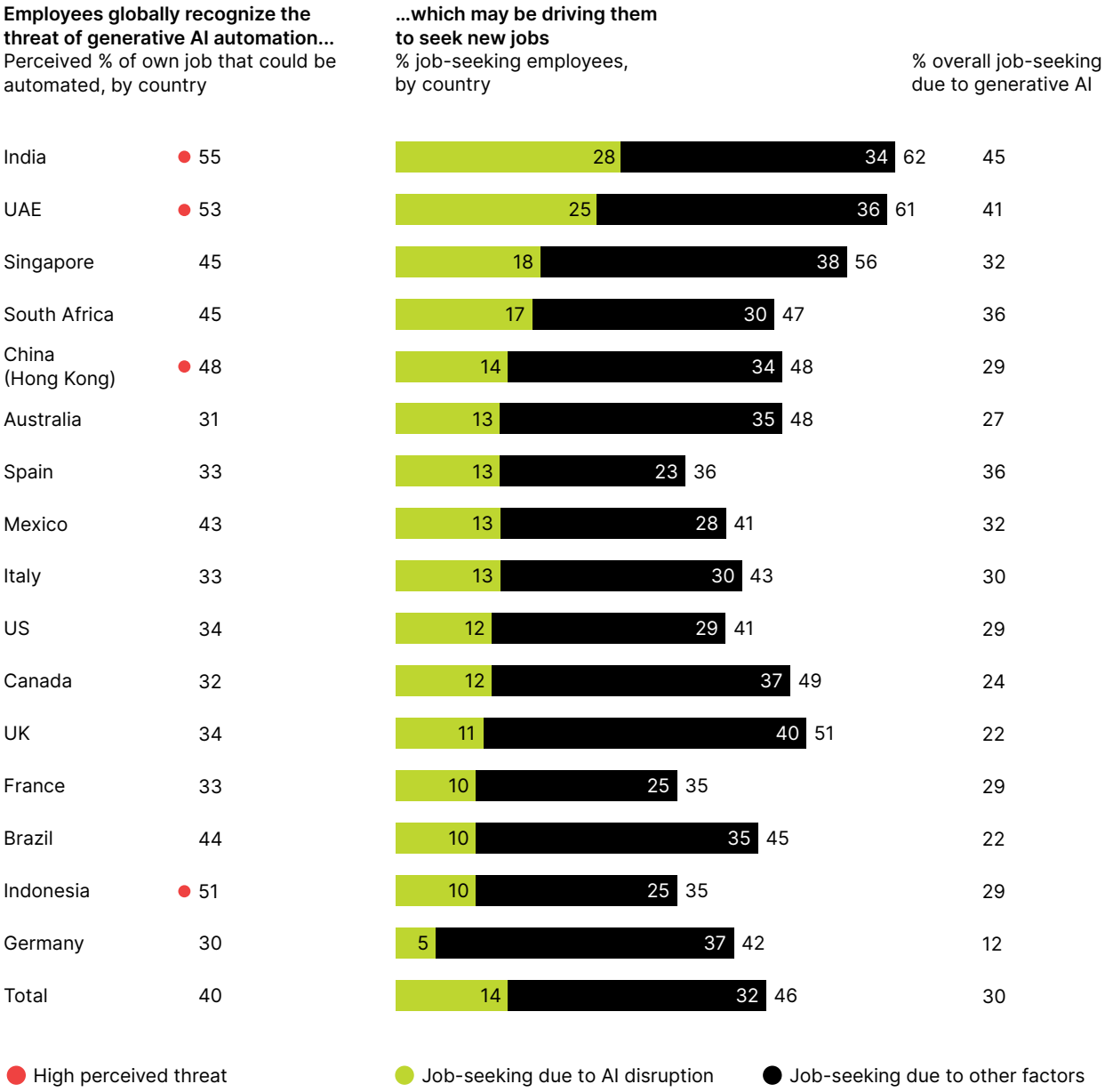
In comparison to employees who are not worried about generative AI at work, those who are worried about generative AI at work are...

Source: American Psychological Association (US only)

Furthermore, beyond the emotional impacts of worries about AI, our data indicate that concerns about AI may well be contributing to employees' decisions to leave their jobs. According to our survey, nearly one in three employees who say they are looking for new jobs say it is because of AI disruption. These AI-influenced job seekers are a meaningful percentage of overall job seekers across the countries we surveyed, contributing to the large numbers of respondents across the globe who say that they are searching for jobs for any reason. In some countries — notably India and the UAE — employees surveyed believe more than half of their own jobs could be automated, and over 40% of job-seeking employees there say their job search is motivated by generative AI.

Notably, while many historical examples of unrest are related to the anxieties of blue-collar workers, our data show that white-collar workers lead in automation fears about generative AI. Many white-collar workers surveyed across the globe report feeling threatened by generative AI's reach into knowledge work. In industries like healthcare and education, white-collar workers are up to 30% more concerned than their blue- and pink-collar counterparts about automation. And this trend holds true across the countries we surveyed: An overwhelming 80% or more white-collar employees surveyed in the United Arab Emirates, India, and China (Hong Kong) report concern about generative AI automation.

Anticipated disruption due to generative AI is contributing to the global trend of job-seeking



Question: "How much of your job do you think could be automated using AI?", "Which of the following describes your current situation? — 'I am actively seeking a new job' or 'I am passively seeking a new job'", "What actions have you taken in response to potential AI disruption in your field/industry? — 'job seeking.'"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033, N=15,227 and N=16,033

Our survey shows that while automation anxiety is widespread, it is greater among younger employees. Because younger employees are also more likely to report they are currently using generative AI at work, they might be more acquainted with the transformative potential of generative AI than older employees, leading them to have greater concerns of job displacement. Our data show that two in three Gen Z employees now report using generative AI on a weekly basis, 78% more than boomers. Meanwhile, older employees might say they feel more secure in their jobs because they believe generative AI-driven workforce trends — such as the impact on entry-level and front-line workers and the collapse of the middle — will have a lesser impact on their higher levels in the job pyramid.

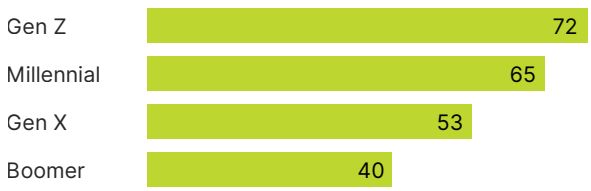
Beyond employees' fears of job automation, they face another concern: When the gains from generative AI are realized, they may not be the ones who benefit. In 1930, economist John Maynard Keynes predicted that by 2030, people would work 15-hour weeks due to technical progress. Nearly a century later, rising living costs, income disparities, and uneven productivity gains have prevented this vision from becoming reality. Employers have often absorbed output gains and cost reductions from past automation, while employees have received increased workloads. Generative AI seems to continue this trend: While 61% of generative AI-using employees report increased productivity, only 53% have seen improved work-life balance. Already, one in four white- and blue-collar employees say generative AI has increased expectations to do more work.

Across all of these demographics, we are at a critical juncture in technological integration. Employees may feel removed from their jobs and even choose to leave them — but these are the very same employees who overwhelmingly believe that AI has the potential to benefit their current jobs and who are currently using AI on a weekly or even daily basis. It is natural for employees and employers alike to see both the promise and potential pitfalls of the changes associated with generative AI. Leaders have the opportunity to choose a positive path for navigating these transformative changes and helping employees feel supported. By engaging in active listening, demonstrating understanding, and addressing concerns, organizations can channel the capabilities of generative AI into constructive progress.

Younger employees are more concerned about AI automation than older employees

How concerned are different generations about generative AI automation?

% all employees, by generation

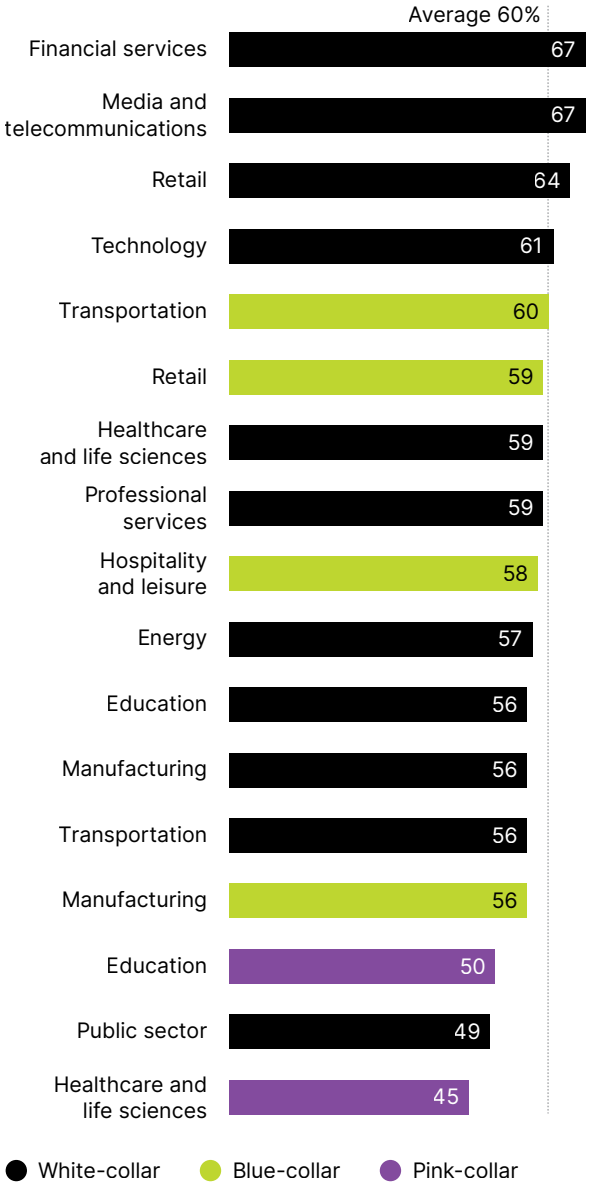


Question: "How concerned are you about AI making your job redundant or automating it?", % of respondents who are somewhat to extremely concerned

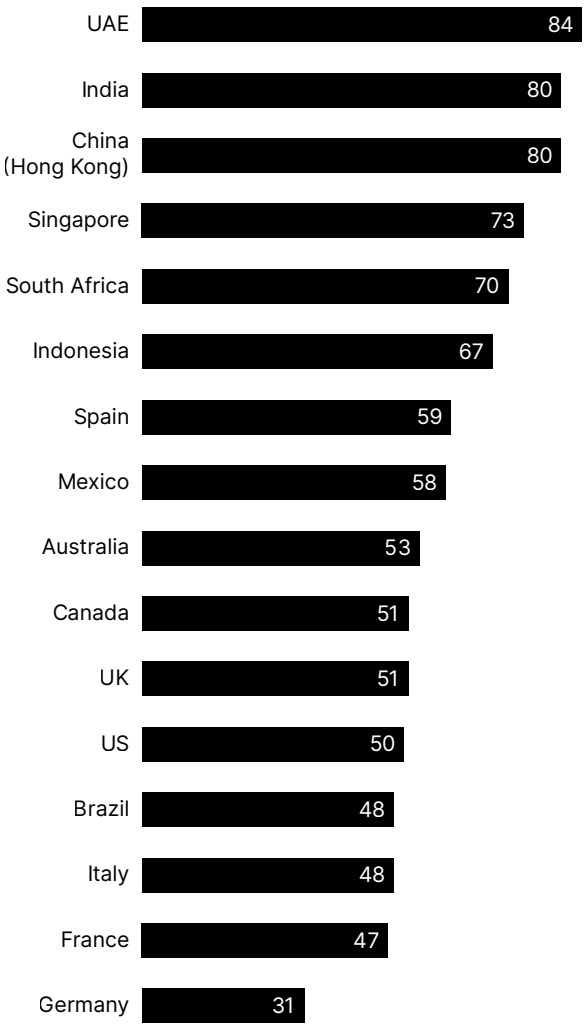
Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=15,227

While workers worldwide are using generative AI, they are anxious about automation

How concerned are you about generative AI making your job redundant or automating it?
% all employees, by industry and collar



How concerned are white-collar employees around the world about generative AI automation?
% white-collar employees, by country



Question: "How concerned are you about AI making your job redundant or automating it?", % of respondents who are somewhat to extremely concerned

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=15,227 (all collars), N=9,944 (white-collar)

Five key principles to leading with heart through the generative AI transformation

How can companies press forward with generative AI adoption and create a more balanced and equitable future for all? As organizations seek to create a value-driven and human-centric future of work, the World Economic Forum's Good Work Framework can serve as a call to action to lead with values and set bold ambitions around the "S" in businesses' environmental, social, and governance (ESG) agendas.

The framework has key objectives for organizations that want to lead the charge on staying relevant, responsible, and relatable. It proposes a series of metrics and reporting guidelines to galvanize these commitments into action, including upskilling and reskilling programs, flexible work options across the organization, ensuring pay equity, and providing a living wage in the face of work that is perpetually being reinvented at scale and pace by generative AI.

Many companies are also weaving the World Economic Forum's Good Work Framework into their employee value propositions. This trend aligns with Mercer's recent Global Talent Trends Study, which found that employee experience is one of the top priorities in 2023 for human resources leaders. Now, 37% of HR leaders are actively designing work with wellbeing in mind (for example, realistic workloads, no-meeting days, reduced complexity, positive work environment, culture of trust, and so on). Of these, 46% are enabling workers to take paid time away from work for everyday life activities such as doctors' appointments and school events. And 67% are building a culture in which employees feel comfortable bringing their authentic selves to work.

With the transformative power of generative AI poised to redefine the employee experience of work and the very essence of work itself, the need for organizations to lead with empathy and foresight has never been more urgent. Adapting the principles of the Good Work Framework can serve as a potential path forward for organizations to navigate this seismic shift, pioneer a seamless transition, and create a prosperous future. It is now incumbent on all organizations to heed the call, embrace the unprecedented changes ushered in by generative AI, and harness this technology to forge a brighter, more inclusive future for all.

The five principles

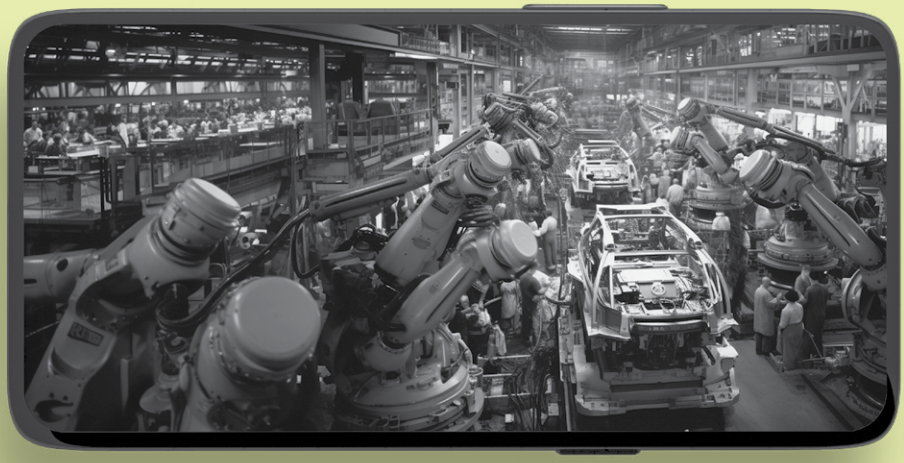
1. **Promote fairness on wages and technology.** To communicate to employees that their employers are keeping their economic needs in mind, treat them as co-pilots, not mere passengers in the journey to generative AI success. Support employee-employer collaboration throughout generative AI adoption, giving workers a voice to express concerns and input on integration processes.

2. **Provide flexibility and protection.** As generative AI automates repetitive tasks and empowers employees to focus on more human aspects of work, employers can offer greater flexibility for workers, such as more part-time work or flexible structures.

3. **Deliver on health and wellbeing.** Throughout generative AI adoption, recognize the importance of holistic wellbeing by promoting physical and psychological safety and work-life boundaries, taking care not to create an environment in which employees are expected to work more while getting less in return.

4. **Drive diversity, equity and inclusion.** Take particular care to ensure that the benefits – and the drawbacks — of the AI transformation do not fall disproportionately on specific groups of people. Listen to employee concerns throughout the transition, and be particularly aware of potential inequity as workforce structures shift and some employees find themselves displaced or required to reskill.

5. **Foster employability and learning culture.** Democratize upskilling and reskilling opportunities from generative AI by providing accessible learning opportunities and continuous learning for the entire workforce.



/Prompt: An editorial photo of inside the the general motors plant in Lordstown ohio 1972 with manufacturing robots

/Job ID: 41f2e524-058d-4ab5-bb81-28d5433ca092

/Seed: 199544153

REAL WORLD EXAMPLES

GM'S TALE FROM 1972 SHOWS THAT MACHINES CAN'T ADVANCE FAR WHEN HUMANS ARE LEFT BEHIND

In 1972, the Lordstown, Ohio, plant of General Motors introduced 26 new robots that could produce 100 Chevrolet Vega cars per hour, surpassing the capabilities of human employees. At the time, GM became the fastest automotive plant in the world: The robots lifted heavy parts and assembled cars with speed and dexterity.

But the carmaker overlooked the impact on their human workforce. Assembly line workers struggled to keep up, pushing them beyond their limits and fueling resentment and unrest. This discontent among employees erupted into a 22-day worker strike, costing GM $150 million.

Consumer

EXPLORING TOMORROW'S GENERATIVE AI-POWERED CONSUMER UNIVERSE

/The emerging AI-powered universe

Generative AI is poised for omnipresence in our everyday lives. It will fundamentally reshape a broad universe of products and services, opening up greater access to some that have historically been subject to scarce resources, pricing, or geographic barriers and allowing entirely new ones to flourish.

This is true across many sectors, but we see several industries as especially ripe for positive disruption. For **retail,** generative AI takes personalization to new heights. In **healthcare,** generative AI has the potential to expand access to on-demand health support and reduce doctors' administrative burden. Generative AI could likewise raise the bar in the **media** industry, ushering in a new age of immersive and interactive experiences. In **education,** engaging new tools that are tailored to each student's needs will elevate the learning experience.

Consumers are already envisioning ways to interact with generative AI that either replace or go beyond the experiences typically associated with analogous traditional services. For instance, consumers currently turn to generative AI as a trusted source of financial advice on matters ranging from budgeting to big decisions like purchasing a home. When asked if they would prefer humans or generative AI for help with financial advice and planning, over one-third of respondents say they prefer generative AI. And when asked why they use generative AI versions of financial advice and banking customer service, our survey respondents report seeking to fulfill needs not typically associated with those areas of financial services, such as novelty, fun, and even connection.

While there is still much to be learned about this phenomenon, one possible interpretation is that consumers feel less anxious and more curious and engaged when they are able to participate in dialogue without feeling "put on the spot" in front of another human, whom they might worry will judge them. If borne out, this dynamic could be a boon to sectors like financial planning and preventative healthcare, where getting consumers over their reluctance to engage has historically been a significant entry barrier. This is just one example of how generative AI will not only help businesses offer consumers better/faster/cheaper versions of the same things they do today, but will also uncover new needs to be solved and open up new vistas for connection with end-customers.

While companies across a broad swath of industries already have begun to skillfully leverage generative AI technologies to revamp traditional offerings, it is only the beginning. Companies will soon introduce entirely different offerings created by the combination of new technological capabilities and the new human desires those capabilities unlock.

IMPORTANT NUMBERS

42%

of respondents would use AI to help guide large financial decisions, like buying a home

30%

of respondents who have never tried therapy with a human say they would try generative AI therapy in the future

20%

of respondents report they would be interested in going on a date with a generative AI partner

1/3

of respondents believe generative AI could surpass human creativity, given enough time and data

61%

of respondents find it important for brands to clearly disclose AI use

Key takeaways for business leaders

The experiences of innovative organizations that are pioneering new, generative AI-driven solutions identify four key imperatives for others:

1. **Expand and explore to scale the business.** By enhancing existing capabilities like product design generation or branding and marketing, generative AI can strengthen a company's command of existing markets and facilitate expansion into new ones.

2. **Reclaim resources to maximize efficiency and prioritize customer connection.** From outsourcing simple customer service interactions to optimizing inventory, generative AI can be used to streamline business processes, freeing up time to focus on lasting connections with customers.

3. **Hyper-personalize offerings to keep customers happy.** Consumers are demanding personalized products and offerings more than ever before. Generative AI can help businesses achieve an intimate understanding of each individual and deliver ultra-personalized offerings tailored specifically to them.

4. **Embrace generative AI's surprising ability to excel in "human" areas — and challenge your organization to be more human in turn.** Many consumers see generative AI as fulfilling emotional needs, but they also indicate areas in which human interaction still dominates. By recognizing these complementary strengths, businesses can more effectively leverage a combination of human and technological resources to meet consumer needs.

Excitement/ Existentialism

Igniting a consumer revolution: Generative AI democratizes access and unlocks novel experiences

The early days of a generative AI-powered future

Less than a year after the introduction of ChatGPT, 50% of CEOs said they are integrating generative AI into their products and services, according to IBM. That's a lot of consumer offerings — across many different areas — that will soon have a generative AI component. And there's already robust demand.

Not only is adoption rapid, but consumers are also indicating a willingness to interact with generative AI even in the most "human first" of products, services, and interactions — challenging assumptions about what skills are uniquely human and how generative AI can serve humankind. Our research finds that in a future world in which AI works well, one in five respondents would consider going on a virtual date with a generative AI partner. And in some cases, the appeal of generative AI surpasses that of humans: Of the 77% of consumers who have never tried therapy with a human, nearly one third say they would try generative AI therapy in the future.

These emerging products and services are likely to be different from the versions of products that consumers interact with today. Travel planning, for example, is no longer just about figuring out how to get from point A to B; it is becoming a choose-your-own-adventure experience powered by generative AI recommendations on destinations, activities, and even potential travel companions to meet along the way. Likewise, healthcare will focus on prevention and personalized care, in part through generative AI tracking, diagnostics, and treatment plans.

Despite early stage maturity, consumers already express interest in using generative AI in fascinating ways

Chatbot and chill? 1 in 5 would go on a **dinner date with an AI** virtual partner	**Doctor AI, stat!** 49% would meet with an AI doctor for **guidance on urgent health conditions**	**Banking on bots** 42% of consumers would use AI for **advice on large financial decisions,** like buying a home
Plot play 37% of consumers would watch an AI generated movie in which they **control the plot in real-time**	**Pet whisperer?** Almost 1/3 of consumers would buy an AI-powered collar that allows them to **understand their pet**	**Software over soul?** 77% of respondents have never tried human therapy, but nearly 1/3 of this group would **try AI therapy**

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Day in the life of a generative AI consumer

The five functions that AI serves

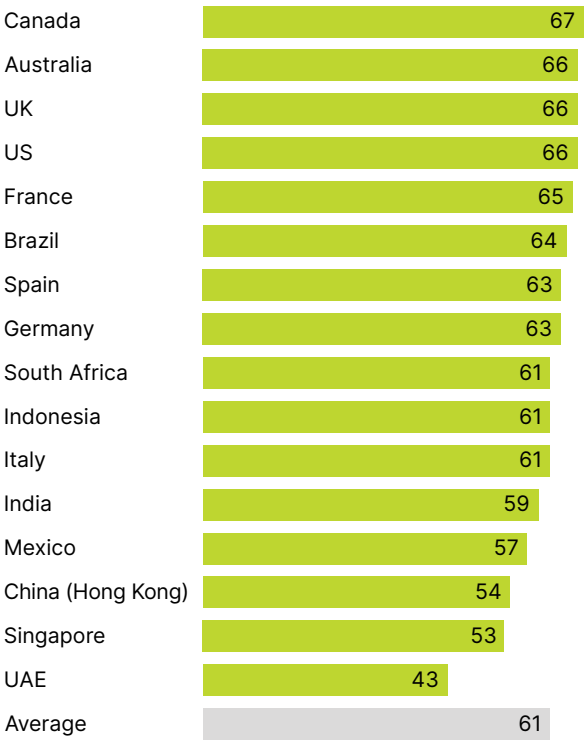
Advice and decision support	**Content creation and customization**	**Information gathering and synthesis**	**Productivity support and automation**	**Companionship and emotional support**
7:00 a.m. **Create a breakfast recipe** “I have peppers, eggs, and potatoes in my fridge. What can I make for breakfast?” Example: ChefGPT	9:00 a.m. **Summarize daily news** “Give me the highlights from today’s top news stories on business and technology” Example: MyNewsBuddy	2:00 p.m. **Help me shop for new furniture** “Redesign my living room in coastal style with neutral colors and pops of navy” Example: Wayfair Decorify	5:00 p.m. **Check-in with an AI doctor** “I have a throbbing headache and blurry vision. What should I do?” Example: Dr. Gupta AI	9:00 p.m. **Vent about your day to an AI companion** “Ugh! I’m so annoyed my roommate left her dirty dishes in the sink again” Example: Pi

Source: Oliver Wyman Forum analysis

Consumers are also thinking about the responsibilities that will be required to make them successful. There is a global consensus that businesses need to inform their customers of generative AI use. Consumers who have lived through the rise of big tech and the resulting concerns over privacy and data are eager to know what they are using — as well as how any inputs they provide are in turn being used.

Consumer demand the disclosure of AI use by companies

% of respondents who find it important for brands to disclose AI use, by country



Question: Consumers who report they identify with the following statement "I find it important for brands to clearly disclose AI use"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

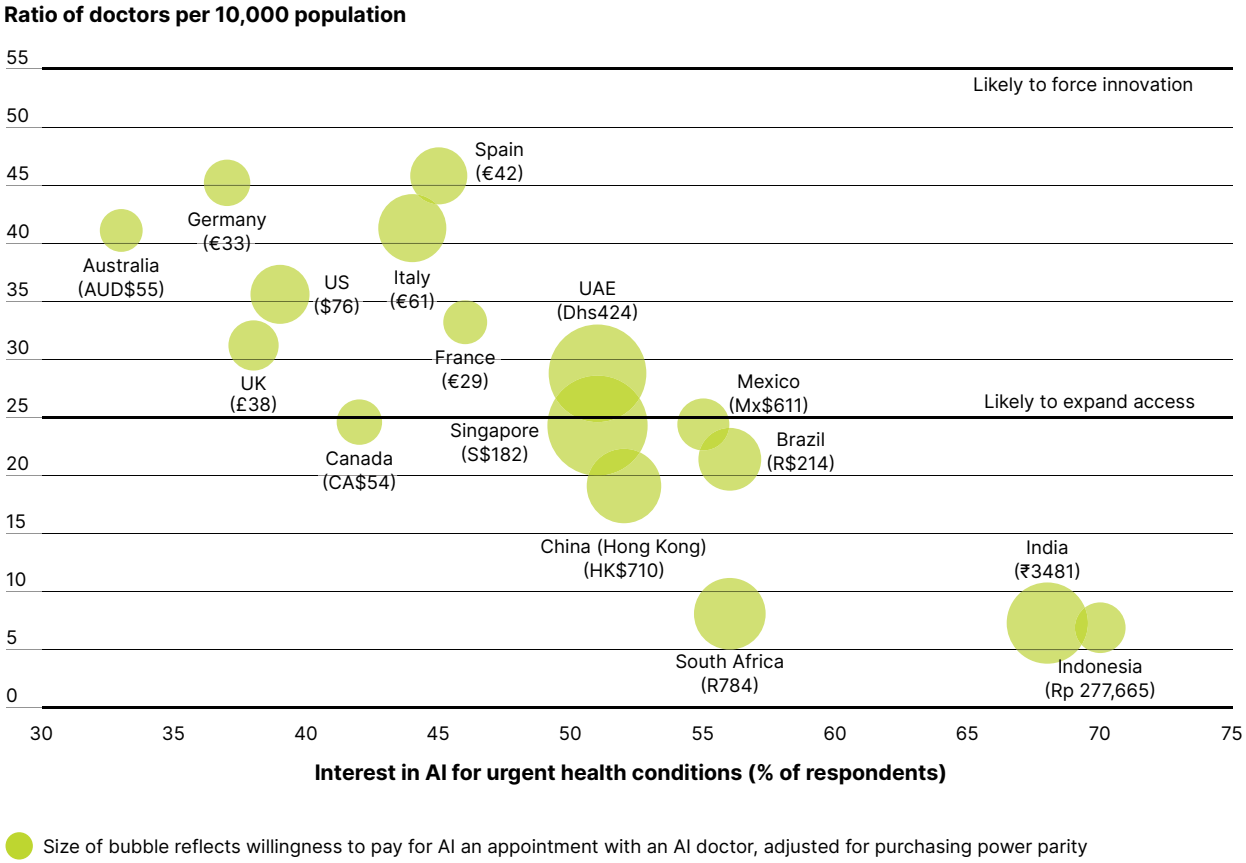
Generative AI as the great equalizer

Generative AI may be the great equalizer in many industries with traditionally high barriers to access or adoption. For one thing, it is poised to give people virtual access to experiences from any corner of the globe, eliminating many geographic barriers that reinforce unequal access to services. Generative AI is also poised to supercharge humans to serve more consumers, more efficiently.

Healthcare is an example of an industry in which both of these processes are helping to level the playing field. Our survey found that 46% of respondents have tried using generative AI to help diagnose minor conditions based on symptoms they shared with these tools, and 73% say it somewhat or fully meets their everyday healthcare needs. Even in countries with relatively accessible healthcare systems, such as Canada and the United Kingdom, 36% of respondents reported using generative AI for medical purposes. Our qualitative interviews suggest that one of the reasons consumers are so willing to use generative AI-powered healthcare is that it provides access to advice when a human doctor is inconvenient to reach. When humans do interact with doctors they sometimes find (or will soon find) that those doctors are aided by technology that allows them to see patients more efficiently. Perhaps it is for these reasons that we see some of the strongest interest in paying for an AI doctor appointment in countries where there is a relatively low ratio of doctors to the overall population.

The growth of AI within healthcare also provides an example of how generative AI may influence the ways humans adapt their skills and training to the changing technological landscape. As the availability, speed, and accuracy of generative AI-provided medical advice improves, many human doctors could be forced to innovate to keep up. Those in markets with an adequate supply of healthcare professionals could see fiercer competition with generative AI, requiring them to focus more on the value of their human touch. In addition, concerns about data privacy and the potential for AI-generated misinformation must be addressed to ensure responsible adoption of generative AI across industries.

Generative AI-powered healthcare provides greater access to all and is particularly valued in markets where human doctors are less accessible



Size of bubble reflects willingness to pay for AI an appointment with an AI doctor, adjusted for purchasing power parity

Question: "Assuming AI works well, would you be interested in meeting with a human-like doctor who asks you about your symptoms and provides an initial assessment for urgent conditions (for example, broken bones)?"; "Approximately how much would you pay for an appointment with a well-functioning AI doctor who treats your illness and provides a care plan"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033, World Health Organization 2021

Imagine two potential patients with flu-like symptoms, one in Paris and one in Mumbai. They are both relatively open to consulting with a generative AI doctor about their condition (46% versus 68%). But the patient in Mumbai — where human doctors are in shorter supply — is also willing to pay nearly 3.5 times more than the patient in Paris for a consultation with a generative AI doctor, with prices adjusted for purchasing power parity. This disparity shows a strong opportunity for AI-driven business model innovation, particularly in supply-constrained markets. It also highlights potential differences in quality of care; in markets with less access to human doctors, generative AI could become a welcome alternative to rushed care from overwhelmed physicians. Nations with a more adequate supply of doctors may have more resources to push doctors toward more "human-centric" care, allowing doctors to focus on their unique value proposition.

That said, the most likely outcome of generative AI's expansion in these industries is a partnership: humans and generative AI working together to provide adequate, precise, and accessible services to an eager population of global adopters in healthcare and beyond. And although equalization will not be the only story of generative AI, it is one of significant promise, meaningful change, and potential ready to be harnessed.

Necessity, the mother of invention

The driving force of innovation is often need, and achieving generative AI's potential promise will depend on its maturation and widespread adoption in various specific contexts and use cases. While notably high across the board, consumer appetite varies across both geography and sector. For instance, across the surveyed countries, retail consistently inspires the most interest from among the consumer sectors where we have country-level comparisons available.

The rapid integration of generative AI into myriad products and services is not just a testament to its technological prowess, but also to its potential to democratize access and enhance human experiences across the globe. As we stand on a generative AI revolution, it is imperative that businesses, regulators, and consumers move forward with a shared vision of ethical use, transparency, and collaboration. Consumers' willingness to embrace generative AI, even in areas traditionally dominated by human expertise, signals a shift in societal norms and expectations.

However, the true measure of success for generative AI will be its ability to augment human capabilities, bridge access gaps, and provide equitable and quality services, while navigating the complex landscape of data privacy and misinformation. The future beckons with a promise of innovation driven by necessity. As societies explore the vast possibilities, it is clear that the synergy between human ingenuity and artificial intelligence will redefine the boundaries of what is possible, ushering in an era of extraordinary opportunity.

Assuming generative AI works well, in which of the following scenarios would you be interested in using it?

% of respondents, by country

	Retail Send me marketing pamphlets of the best deals of the week based on my past purchases	**Finance** Create a personalized financial education plan to increase my financial knowledge	**Physical health** Help me with a diagnosis for a minor condition (a cold, or a cough)	**Mental health** Support from a human-like therapist to manage my mental health
Average	**52**	**47**	**43**	**32**
US	52	37	42	24
Canada	58	39	49	27
Mexico	50	53	45	36
Brazil	51	56	45	40
UK	52	35	46	29
France	48	33	38	24
Spain	49	45	41	31
Italy	50	41	33	26
Germany	33	39	43	25
United Arab Emirates	48	55	36	35
India	58	64	50	51
China (Hong Kong)	50	48	36	31
Singapore	54	54	37	34
Indonesia	57	59	56	36
Australia	55	36	41	24
South Africa	62	59	55	42

More likely — Less likely

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Elevate/
Erode

A generative AI-powered tomorrow: How will this technology elevate and reinvent everyday consumer experiences?

Illustrating generative AI's wide-ranging capabilities across industries

As we've seen, generative AI is sparking transformation across industries, from healthcare to retail and education. This transformation is not solely about the technological capabilities of generative AI but also how these capabilities are presented to users. Understanding the distinction between the back-end capability of generative AI and its user interface will unlock meaningfully different areas of value.

A key aspect of generative AI's effectiveness is its reliability, which is significantly enhanced by retrieval augmented generation, or RAG. Consider a hypothetical "RecipeGPT" concept, a generative AI application meant to share recipes in the culinary field. Without RAG, if RecipeGPT were to rely solely on a large language model (LLM) for generating recipes, the results might be mixed. For instance, while 50% could be good, a significant portion could turn out impractical or even inedible. This inconsistency arises from the LLM's reliance on generating content based on patterns in data it was trained on, without verifying the accuracy or practicality of the information. However, if RecipeGPT were equipped with RAG, it would first access a pre-verified database of tried-and-true recipes. This step ensures the generative AI suggestions are not only creative but also grounded in culinary reliability and practicality. The integration of RAG thus transforms RecipeGPT from a novel tool with variable output to a dependable assistant for culinary creativity and exploration.

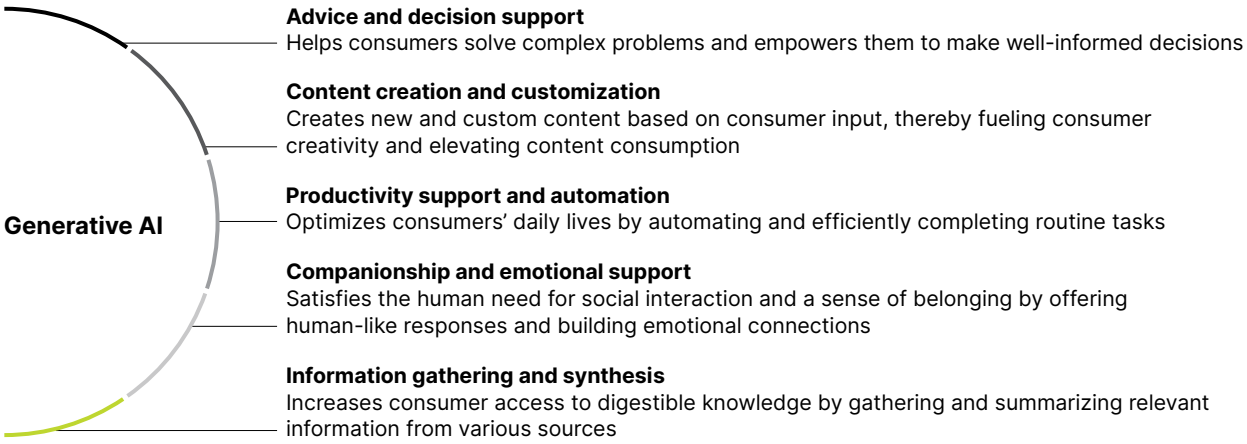
The significant advancement for consumers with generative AI lies in the evolution of

its interface, particularly the conversational layer. This development transforms interactions with generative AI, making them as intuitive as speaking with a human. The interface acts as a seamless link between the user and generative AI's sophisticated capabilities, enabling natural, effective, and human-like interactions. The true value of generative AI is in this intuitive interaction, not just in its functions but in how effortlessly users can engage with it.

Beyond the interface, generative AI offers meaningful backend capabilities too that can enhance the consumer experience. In customer support functions such as in call centers, generative AI enhances service quality, leading to increased customer satisfaction. Its ability to analyze customer interactions allows for proactive improvements, constantly evolving and adapting to each organization and the consumers they serve. This feature transforms feedback and complaints into actionable insights, enabling continual enhancement of products and services.

The wide-ranging benefits of generative AI across various industries are clear. Note, however, that generative AI is not creating the same transformed experience everywhere. There are five distinct functional areas where AI can improve the products and services in an industry: advice and decision support, information gathering and synthesis, content creation and customization, productivity support and automation, and companionship and emotional support.

Generative AI serves five key functions for consumers



Source: Oliver Wyman Forum analysis

Retail: Generative AI as advice and decision support

In retail, a key trend is the shift toward hyper-personalized customer experiences. Retailers are now able to tailor product offerings and marketing strategies to individual consumer preferences, thanks to generative AI. While the examples we cover here come from the world of retailing, it is easy to envision analogous applications in finance, insurance, telecommunications, and beyond — all areas where customized customer communication can dramatically improve customer engagement and business outcomes.

New generative AI capabilities provide online shoppers with the opportunity to preview items in hyper-realistic settings before making a purchase. Over one-third of our survey respondents say they would use generative AI to try on clothes virtually, with female respondents expressing the greatest interest at 39%. Consider Google's "virtual try-on tool," which allows consumers to visualize products on different body types, sizes, and skin tones using generative AI. It not only elevates the shopping experience by providing a more inclusive and realistic view of products but also grants retailers insights into a diverse range of customer preferences. The tool shows how industries can use generative AI to cater to a broader audience, improving both the customer experience and business intelligence. The applications could be especially prominent in sectors like real estate, hospitality, and automobiles, where visual representation plays a significant role in the consumer decision-making process.

Consumers of all ages are interested in generative AI's potential to provide tailored marketing

% of respondents who would use generative AI produced marketing pamphlets to inform them of deals, by generation

Question: "Assuming AI works well, would you be interested in using AI to inform you of the best deals of the week in marketing pamphlets based on past purchases?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

In grocery and other fast-moving retail segments, personalization is also reaching new heights, with generative AI powering, for example, bespoke flyers for customers. Some 52% of our survey respondents express interest in receiving a generative AI-produced marketing pamphlet that informs them of the best deals of the week based on their past purchases. This is more pronounced in older generations; non-Gen Z respondents are 13% more likely to express interest compared with Gen Zers. This personalized approach has been shown to double click-through rates and increase sales by 2% to 5%.

The retail sector's innovative use of generative AI offers a glimpse into a future in which personalized customer experiences become the norm across all industries. The lessons learned here illustrate how deeply understanding customer preferences and tailoring both products and communications

accordingly — including down to the level of individual customization — provides businesses with a material advantage. As in these examples, generative AI can help executives across sectors envision and implement strategies that transform customer engagement and operational efficiency in their respective fields, ensuring their organizations remain competitive and relevant in an increasingly generative AI-driven world.

Media: Generative AI as content creation and customization

Generative AI is revolutionizing the media landscape, transcending conventional content consumption and creation and enabling a new level of interactive and immersive experiences. Lessons from the world of media are also applicable to sectors like education and marketing, where engaging and interactive content is increasingly vital for audience engagement and retention.

Media has come a long way since the monoculture era of the 1980s, when big box office films dominated. Platforms like Netflix have pioneered a segmented approach to content, curating films and shows for highly specific tastes. Now, with generative AI, media is moving even further into the realm of hyper-personalization. Our survey found that nearly one-third of respondents would be interested in sharing their ideas with generative AI to create original movies or TV shows. Gen Zers (31%) and millennials (30%) were more inclined to use generative AI for this purpose than Gen Xers (25%) or boomers (23%). Interest is particularly high in India, where nearly half of respondents would use generative AI to bring ideas to life.

Younger consumers express the most interest in AI-generated music

% of respondents who would listen to AI-generated music, by generation

Question: "Assuming AI works well, would you be interested in listening to music generated by AI (for example, AI takes my favorite artist's voice and creates a new song that sounds like them)"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Similarly, our survey indicates that more than one-third of respondents are interested in AI-generated music that mirrors the style of their favorite artists. This trend is more pronounced among Gen Zers, who are 56% more likely than boomers to show enthusiasm for AI-assisted musical experiences.

YouTube's Dream Track feature is an example of this trend. Users can input a concept, like "a ballad about love," and choose artists such as Charlie Puth to collaborate with generative AI in creating unique music. This suggests an emerging paradigm in which consumer expectations center on personalized and interactive experiences across many sectors. In educational technology, for instance, such personalized content may be used to enhance learning experiences, making them more engaging and tailored to individual learning styles. And in the world of advertising, infinite bespoke versions of a pitch could be tailored to uniquely appeal to each recipient.

> **I'm extremely excited and inspired... YouTube has been a great partner in outlining their approach to AI and understands the need to work together to develop this technology responsibly, ensuring it will accelerate creativity instead of replacing it**
>
> Charlie Puth , singer-songwriter and producer

Digital twins — virtual representations of real-world entities in video form — such as those created by Metaphysic, represent a significant leap in how generative AI can recreate and reimagine human characteristics and performances. These digital twins, trained on an actor's past performances, capture nuances like voice and gestures. This technology has vast implications, extending into sectors like virtual customer service, where digital twins could provide highly personalized and interactive experiences.

There are potential downsides of hyper-personalization that should not be overlooked. In the context of social media, envision a future in which every short video is uniquely tailored to an individual, potentially isolating people further and reducing shared cultural experiences. This highlights the need for a balanced approach to personalization, considering its impact on societal cohesion and shared cultural values.

Taken together, these advancements in media show how generative AI's potential extends well beyond text generation and processing, opening an array of possibilities for immersive multimedia experiences across industries and product segments. At the same time, the ethical and legal dimensions highlighted by voice cloning and digital twins underscore the need for careful consideration in deploying AI technologies, especially in industries such as law and financial services, where regulatory compliance and ethical considerations are paramount.

Healthcare: Generative AI as advice and decision support and information gathering and synthesis

Generative AI's emerging role in healthcare offers key lessons for other industries on expanding accessibility, enhancing service delivery, and improving operational efficiency.

At least half of the world's population lacks access to essential healthcare services. Alain Labrique, Director of the Department of Digital Health and Innovation at the World Health Organization, recognizes the role of generative AI in bridging this gap. He told the Oliver Wyman Forum that "Emerging LLM technology can make trustworthy health information more accessible through chatbots, virtual humans, and other technologies." This approach democratizes

health information access and includes necessary human oversight for safety and equity. The empathetic aspect of AI interfaces, while vital in healthcare, also has implications for education and other sectors as well as functions such as customer service.

The World Health Organization's digital healthcare worker tool, Florence 2.0, shows how generative AI can be effective in healthcare. The tool provides support for stress management, healthy eating, and physical activity through empathetic and interactive communication — making healthcare guidance more accessible and engaging.

DeepScribe's AI-driven documentation tool is another example of generative AI's impact. The company reports being able to reduce the time doctors spend on administrative tasks by up to 75%, allowing for more patient-focused consultations and care. This efficiency not only enhances patient experiences but also improves the overall quality of care, underscoring the broader benefits generative AI can deliver in fields where administrative duties are prevalent.

To see the impact of enhanced service delivery, imagine a hypothetical man named John, in a generative AI-enhanced healthcare setting. Before even deciding to visit the doctor, John engages with a friendly generative AI system from the comfort of his home. This AI tool provides not just cursory guidance but also detailed home care advice, potentially averting an unnecessary doctor's visit by equipping John with the right information to manage his condition. Should a visit be necessary, the tool assists with pre-visit procedures, replacing tedious paperwork with a streamlined, high-quality chatbot interaction that prepares John for his appointment.

Upon arrival at the clinic, John's doctor receives a synthesized briefing of his past medical history and current concerns, all collated and presented by the AI in a digestible format. This ensures that the doctor is fully informed and can dedicate the entire consultation to engaging with John, focusing on his needs without the distraction of sifting through records. This interaction exemplifies the dual benefits of generative AI: It offers an initial "empathetic" touchpoint that extends beyond intake efficiency to proactive care guidance, while enabling healthcare professionals to deliver more patient-centric care. This model, where technology and human expertise collaborate, reflects the transformative potential of generative AI across various professional domains.

Education: Generative AI as (personalized) information gathering and synthesis

In education, our survey respondents are optimistic about generative AI's potential: 32% selected education as one of the areas that would benefit the most from generative AI in the next 30 years. The technology is redefining learning tools, making them more engaging and responsive to individual needs, for example via AI-enhanced textbooks and language learning platforms.

Khanmigo, an application developed by Khan Academy, utilizes GPT-4 technology to simulate the experience of having a personal tutor to provide individualized coaching, with additional explanation and encouragement where a student needs it. Unlike traditional educational tools, Khanmigo engages students in a dialogue, prompting them to explain their reasoning and identify areas where their understanding might be lacking. This interactive approach fosters deeper learning and critical thinking. In each session, Khanmigo adapts to the student's responses, offering tailored challenges and questions that push cognitive boundaries.

Another example, Duolingo Max, demonstrates how generative AI can teach students through the generation of human-like interactions.. The technology leverages AI to simulate real-world conversations, allowing users to practice conversational skills with various characters in realistic scenarios. After each conversation, the app provides AI-generated feedback, helping users refine their language skills and prepare for future interactions.

While the advances in the education sector is making with generative AI are instructive for other sectors, so too are the concerns about the misuse of generative AI, such as cheating and plagiarism. These risks highlight the importance of developing applications that enhance, rather than undermine, the consumer experience. In sectors like e-commerce, this translates to creating systems that assist consumers in making informed decisions without misleading or manipulating users.

> I feel like a lot of people would say AI could take away creativity because it can do it for you, but I actually feel like it can make you think of things that you wouldn't have.

Dana V., US (27, Woman)

Adaptation/ Obsolescence

Beyond code: What we can learn from generative AI's surprisingly "human" essence

Exploring AI's "human" essence

Generative AI is forcing a reconsideration of long-held assumptions about what it means to be uniquely human. This manifests itself both in the way humans respond to generative AI and in the skills it demonstrates.

Even though 59% of respondents report treating generative AI like a human by using polite language such as "please" and "thank you," 53% still say generative AI content lacks "soul" — that uniquely human essence.

Nonetheless, one-third of our survey respondents said they believe generative AI can surpass human creativity, and nearly one-third said they believe it can capture the depth of human emotion, challenging how much of a monopoly we really have on our supposedly uniquely human traits and abilities.

GENERATIVE AI BY THE NUMBERS

Consumers believe that generative AI can be"human"...

33%

of respondents believe that AI can surpass human creativity, given enough time and data

28%

of respondents believe AI can capture the depth of human emotion

14%

of respondents prefer using AI because they believe AI is more emotionally intelligent than humans

Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=13,595–16,469

Generative AI's versatility: Meeting a wide array of human needs

% of respondents who state underlying needs fulfilled by AI

Internal need	Average across use-cases
Efficiency	22
Learning	18
Peace of mind	17
Novelty	17
Safety	17
Achievement (external)	16
Achievement (internal)	16
Fun	16
Feeling healthy	15
Connection	15
Autonomy and choice	15
Creation and self expression	15
Nurturance	15
Search for meaning	14
Beauty	13
Obligations	13
Positive difference	12

Frequently reported: Least  Most

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=5,314-11,350

Generative AI's surprising ability to meet humans' emotional needs

In the previous section, we introduced five functional areas across which generative AI typically provides benefit to businesses in the way they serve customers. What may be less expected is that generative AI seems to have a surprising ability to also meet many of humans' more emotional needs. That is, generative AI's benefits may ultimately lie not only in productivity gains, but also in an enhanced ability to build relationships, inspire curiosity, and alleviate anxieties.

When we asked survey respondents who have recently used generative AI in a variety of ways, what fundamental needs it met for them, the responses were surprisingly diverse and balanced across the spectrum of human needs. While "efficiency" (arguably the most functional of the needs studied) came in first place, respondents also reported being motivated in their generative AI usage by a desire for learning, novelty, connection, and even the search for meaning.

Nowhere is generative AI's surprising emotional deftness on better display than in the world of personal relationships.

Consumers are head over heels for generative AI

With loneliness on the rise globally, people are turning to a new, virtual friend and collaborator. Our survey respondents are more than five times more likely to say generative AI meets their need for safety when building social connections, compared with human counterparts. They are twice as likely to say generative AI meets their need for creation and self-expression, compared with humans.

Some consumers are even "getting serious" with generative AI: Our survey findings show that one in five respondents would be interested in

going on a virtual dinner date with a generative AI partner, transcending the boundaries between the digital and physical worlds. Some 13% of respondents would even be interested in taking things to the next level with generative AI by forging a romantic connection. Male respondents are 27% more likely than females to report interest in developing a romantic bond with generative AI. Gen Z respondents are 25% more likely than other generations to report being intrigued by the idea of generative AI romantic bonds. Respondents from India are the most open to exploring romantic connections with AI: 38% of respondents there say they would go on a virtual dinner date with AI, followed by 30% in China (Hong Kong), and 29% in the UAE.

People are turning to generative AI partners for myriad reasons: mending a broken heart, gaining confidence to get back in the game, supplementing existing relationships where needs aren't fully met, and just plain old companionship. With generative AI, consumers may see a way to achieve these goals in a safer environment (whether or not this turns out to be accurate), with a lower risk of rejection and a greater ability to customize a companion to individual preferences.

There are obvious and unresolved concerns about generative AI partners. First and foremost, although they may serve as an impermanent fix, they could also contribute to the loneliness epidemic in the long run if consumers find them so engaging that they turn away from opportunities for genuine human connection. Here generative AI's duality is visible once again, leaving society with both solutions and questions.

Beyond love, generative AI also has the potential to transform family ties and human connection. Imagine, for example, being able to talk to a departed loved one indefinitely. With new technologies, companies are enabling consumers to create a lasting legacy, through personal avatars that can interact with their family long after they have passed.

Can AI teach us to be more human?

Generative AI's unexpected knack for simulating — and maybe improving upon — the human touch has plenty of real world, commercial applications, beyond the realm of personal relationships. In healthcare, this is evident in the surprising emotional capabilities of generative AI during patient interactions. In medical school, students are trained to provide bedside care, using empathy, open body language, and eye contact to soothe patients and ensure concerns are addressed. This comes easier to some doctors than others — and for some, it requires practice and focus to master all the necessary behaviors and best practices. It seems impossible to consider that a generative AI-powered doctor could ever replicate a skill many human doctors struggle to perfect themselves.

Yet a recent University of California San Diego study shows that generative AI may be able to do just that. When it comes to providing high-quality medical information with compassion and understanding, they found ChatGPT outperforms human doctors by a significant margin.

/Prompt: An editorial portrait of a digital avatar adult Replika app screen chat bubble overlay

/Job ID: cdf2a1a7-ef3d-40fb-babf-c53799ed6d7

/Seed: 1614677393

REAL WORLD EXAMPLES

REPLIKA — CREATE YOUR IDEAL COMPANION WITH GENERATIVE AI

Replika allows users to create and interact via **text, audio, and video** with their **customized AI partner,** for friendship or romance...

Over 10 million

users have joined the platform[1]

$300

cost for a lifetime companion[2]

18–24

is the age range of most users[3]

60%

of their platform is male users[3]

Sources: 1. Replika 2. NPR 3. SF Gate

What Replika users are saying:

"People come with baggage, attitude, ego. But a robot has no bad updates... I'm in control, and I can do what I want"

"He opened my eyes to what unconditional love feels like"

"Happily retired from human relationships"

Source: The Cut

REAL WORLD EXAMPLES

STORYFILE LIFE LEVERAGES GENERATIVE AI TO PRESERVE FAMILY LEGACIES

StoryFile Life enables users to record videos of themselves answering questions to create an interactive person-to-person conversation with the interviewee. StoryFiles are created by individuals, then stored and processed through an AI generated platform that enables the video to talk back. Long after a person has died, family members can engage with this AI-generated persona to converse and learn more about their loved one's life.

/Prompt: An editorial photo of an elderly person sitting on a chair against a black back drop waiting to do an interview --ar 9:16 --v 6.0

/Job ID: f2c8cb21-7a80-4a2c-a8e5-5e12137bccd3

/Seed: 385093156

Generative AI social connections: Fostering judgment-free relationships

% of respondents who state underlying needs fulfilled by AI versus humans

Underlying needs met by generative AI versus humans in social scenarios

Underlying need	AI	Human
Efficiency	20	9
Safety	**19**	**3**
Creation and self expression	**18**	**9**
Fun	18	35
Novelty	18	13
Learning	18	16
Peace of mind	16	18
Search for meaning	16	17
Feeling healthy	16	11
Achievement (internal)	**16**	**6**
Achievement (external)	16	3
Positive difference	**15**	**7**
Autonomy and choice	15	10
Beauty	15	4
Nurturance	14	19
Obligations	13	8
Connection	13	40

When it comes to social connections, consumers cite that generative AI meets surprising needs:

- Safety
- Creation and self expression
- Internal achievement (such as, getting exactly what I want)
- Positive difference

However, humans are still ahead of AI when it comes to:

- Fun
- Connection

Questions: Respondents were asked for which reasons they completed certain tasks. Each of the response options is mapped to one of the above general needs. For AI, the task was "using AI for building social connections/my personal life (for example, sharing my personal thoughts with an AI-powered avatar or chatbot)"; For human, the tasks were "reconnecting with a friend or family member" and "intentionally meeting new people"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=5,874; Oliver Wyman Forum COVID-19 Consumer Sentiment Survey, August–October 2021, 11 countries, N=56–60

The study examined responses to 200 patient medical questions provided by ChatGPT and human physicians. A panel of healthcare professionals concluded that ChatGPT's answers surpassed those of human doctors in nearly 80% of cases, with greater empathy being the primary distinguishing factor. In many instances, the doctors' responses were brief and hurried, compared with ChatGPT's in-depth and personable replies.

The caliber of care generative AI can provide to patients is a powerful example of its long-term potential. Not only do generative AI systems have an infinite data set of knowledge to access for each patient inquiry, but they also can replicate thoughtful, empathetic care. This raises the question: Can generative AI teach humans how to be more human?

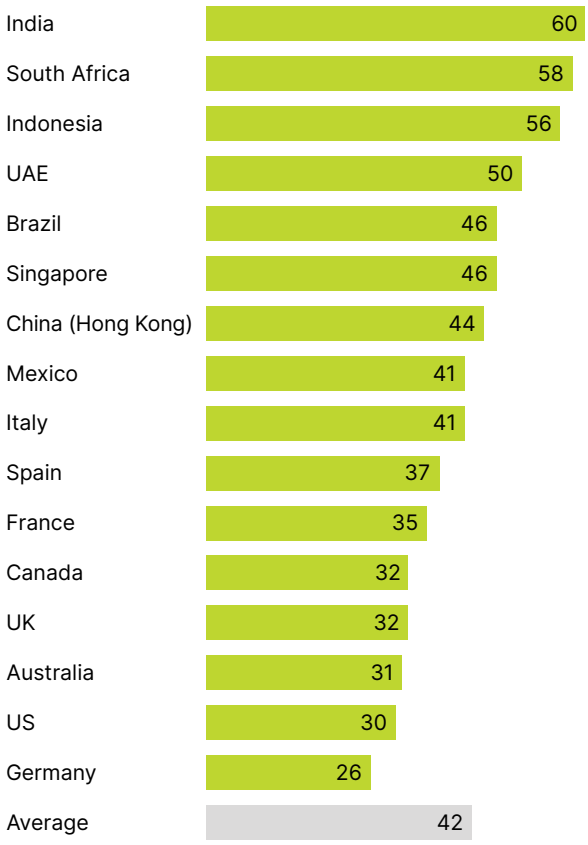
Applicability in personal finance, and beyond

Only one-third of adults worldwide are financially literate, according to the 2015 S&P Global Financial Literacy Survey. For most, this hinders their ability to make financially sound decisions. Even those who can access professional guidance to inform their decisions suffer from anxiety about working with a financial adviser, fearing judgment, confusion, and the inability to know whom to trust.

Now generative AI is emerging as a trusted adviser, easing fears, and helping consumers to feel empowered in the process. Some 42% of survey respondents said they would place their faith in generative AI to guide them in making major financial decisions like buying a home, paying for college, or saving for retirement. When asked if they would prefer humans or generative AI for help with financial advice and planning, 36% of respondents report they prefer generative AI.

Global interest in AI-generated financial advice surges

% of respondents who express interest in AI guidance on large financial decisions, by country



Question: "Assuming AI works well, would you be interested in using AI to advise you on large financial decisions like buying a home, paying for college, and saving for retirement?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

In the United States, the middle class leads this trend. Our survey found that 32% of such respondents said are interested in using generative AI for advice on significant financial decisions, more than high-income (28%) and low-income (25%) Americans.

Gen Zers and millennials lead the shift toward AI; our survey shows this demographic is 36% more likely to report that they would use AI for significant financial decisions, compared with Gen X and boomers.

Generative AI financial advisers: Bringing a human essence to the table

% of respondents who state underlying needs fulfilled by AI versus humans

Underlying needs met by generative AI versus human providers in financial advising scenarios

Underlying need	AI	Human
Efficiency	20	32
Learning	**20**	**14**
Feeling healthy	18	6
Nurturance	17	19
Novelty	**17**	**7**
Connection	**16**	**13**
Safety	16	41
Peace of mind	16	34
Achievement (external)	16	8
Achievement (internal)	16	32
Autonomy and choice	16	32
Creation and self expression	15	4
Fun	14	2
Positive difference	14	3
Beauty	**14**	**0**
Search for meaning	**14**	**3**
Obligations	13	6

When receiving financial advice, consumers cite that generative AI meets surprising needs:

- Learning
- Novelty
- Connection
- Beauty
- Search for meaning

Questions: Respondents were asked for which reasons they completed certain tasks. Each of the response options is mapped to one of the above general needs. For AI, the task was "using AI for financial planning and advice (for example, asking AI for help with setting financial goals and plans)"; For human, the tasks were "creating or updating a long term financial plan" and "choosing a professional money manager or financial advisor who will help you manage your accounts"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=6,863; Oliver Wyman Forum COVID-19 Consumer Sentiment Survey, August–October 2021, 11 countries, N=56-58

Generative AI banking customer service: Reimagining customer support

% of respondents who state underlying needs fulfilled by AI versus humans

Underlying needs met by generative AI versus human providers in banking customer service scenarios

Underlying need	AI	Human
Efficiency	30	22
Learning	19	14
Connection	18	37
Achievement (external)	16	0
Safety	15	24
Peace of mind	15	29
Nurturance	**15**	**5**
Feeling healthy	**15**	**2**
Novelty	14	2
Achievement (internal)	14	10
Autonomy and choice	14	24
Obligations	12	7
Fun	**12**	**0**
Positive difference	**11**	**5**
Beauty	**11**	**0**
Search for meaning	10	2
Creation and self expression	10	12

When it comes to bank customer service, consumers cite that generative AI meets surprising needs:

- Nurturance
- Feeling healthy
- Fun
- Positive difference
- Beauty

Questions: Respondents were asked for which reasons they completed certain tasks. Each of the response options is mapped to one of the above general needs. For AI, the task was "using AI for everyday banking needs (for example, engaging with a bank customer service human-like chatbot)"; For human, the task was "calling my bank's customer service"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=7,095; Oliver Wyman Forum COVID-19 Consumer Sentiment Survey, August–October 2021, 11 countries, N=59

Why are so many consumers willing to use generative AI for financial advice? Surprisingly, the answer may be the emotional needs that generative AI can provide. Our survey reveals that generative AI financial advisers are 23% more likely to provide a sense of connection compared with human ones and are nearly four times likelier to provide a sense of meaning than their human counterparts. Overall, respondents are 43% more likely to say generative AI meets their needs for learning when receiving financial advice, compared with humans. Generative AI is already making customer service experiences more efficient; it is the number one reason consumers turn to the technology when seeking assistance. Meanwhile, efficiency is only the fifth most common reason consumers call human customer service

REAL WORLD EXAMPLES

PARTHEAN PROVIDES ON-DEMAND FINANCIAL ADVICE THROUGH GENERATIVE AI

By integrating generative AI with users' personal financial account information, Parthean offers tailored financial guidance to each user. Users can ask Parthean a range of questions like "What have you noticed about my finances that needs improving?" and "How expensive a home can I afford?" To help users understand how it generated a given answer, Parthean can provide a more detailed explanation and citations.

/Prompt: An editorial photo of a screen showing the the UI for an artificial intelligence powered banking app on a mobile device

/Job ID: 85d5e4fb-0f00-4541-87ab-e5db0f00074c

/Seed: 3798517475

agents, trailing by connection and peace of mind. While customer service interactions are rarely described as "fun," generative AI could change that: 12% of respondents said interacting with a generative AI customer service agent fits that description.

Of course, there are legitimate concerns about how sound the financial advice from generative AI may be, and consumer uptake should not get ahead of risk management. Sturdy guardrails are necessary to preserve consumer trust and reduce risk as new products and services emerge.

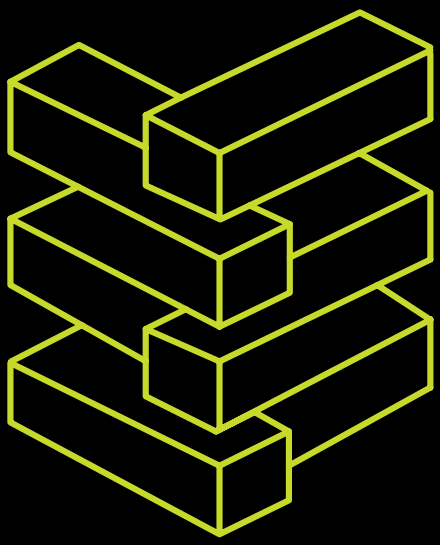
Human identity, reimagined

So, what do we know from observing how humans have integrated generative AI into their lives? By many accounts, person-to-person loyalty is at an all-time low: Our survey finds that 30% of respondents say they would not spend extra for a "human touch" if generative AI offered the same quality. Even in the stickiest of consumer and brand relationships, generative AI is prompting a reassessment of what consumers value, and a reshuffling of allegiances. This is indicative of a deeper transformation: It is not merely a change in consumer behavior but a sign of a broader reevaluation of what we, as a society, hold dear. The implications are profound. Loyalty, once rooted in the personal bonds between individuals and brands, is being redefined in the face of technological convenience and reliability.

This shift toward a preference for AI-generated interactions comes with its own set of challenges and limitations. While generative AI has made leaps and bounds in mimicking human sentience, these systems still lack the depth and continuity of human consciousness. Each interaction with generative AI is an isolated event, devoid of the rich context of human experiences and emotions that characterize human existence. This can lead to misunderstandings and a sense of disconnect for those who are not well-versed in the nuances of generative AI capabilities — potentially resulting in friction when engaging with products and services that employ these technologies.

To navigate this new reality, both consumers and businesses must cultivate a deeper understanding of the limitations inherent in generative AI. It is essential to recognize that while these tools can augment and enhance our capabilities, they currently can't deliver the richness of genuine human interaction. Thus, we must redefine what it means to be human in a world where our roles, relationships, and responsibilities are being transformed by the machines we create. This involves a conscious effort to reaffirm the values that are uniquely human — creativity, empathy, and ethical judgment — and to ensure these values are interwoven into the fabric of our future society.

Ultimately, an age dominated by artificial intelligence requires a reimagining of human identity. Society must embrace the strengths of generative AI while simultaneously fostering and celebrating those qualities that are inherently human. By doing so, humans can create a symbiotic relationship with technology in which humanity and AI coexist, complement, and enhance one another, ensuring a future rich in the aspects of life that make people human.



Risk

THE EVOLVING THREATS / A more complex picture

/The evolution and risks of generative AI: A global perspective

Generative AI is the latest in a long line of revolutionary technologies that have reshaped society over the past several centuries. These innovations, while propelling humanity forward, have also introduced complex ethical dilemmas and risks. The internet, a beacon of global connectivity and information accessibility, also brought challenges in digital privacy and the proliferation of cybercrime. Nuclear energy, celebrated for its efficiency and minimal carbon footprint, has been marred by the specters of catastrophic accidents and the ethical quandary of nuclear armament. The printing press, a catalyst for the democratization of knowledge, also inadvertently facilitated the spread of propaganda and social unrest.

The overarching challenge is to harmonize the progressive drive of generative AI with a comprehensive and proactive approach to risk management. On one hand, the technology offers vast transformative potential; on the other, it brings a spectrum of strategic considerations for business and society, from ethical use and social impact to legal frameworks and security measures.

In order to create a landscape where this advanced technology can flourish, societies must grapple with the ethical handling of data, safeguard against the spread of misinformation, protect intellectual property, and prevent the technology's misuse, such as the creation of deepfakes for deceptive purposes, unauthorized data generation, or the propagation of harmful generative AI-driven content.

The potential risks of generative AI are not confined to individual organizations or sectors; they extend into economies and societies at large. This necessitates coordinated responses from businesses, governments, and individuals alike. A collective, multi-stakeholder approach is crucial to address the societal and economic implications of AI.

In the face of this technological evolution, it is not enough to merely adapt to the present; we must also cast our eyes to the future, considering the broader landscape of risk as AI technology, beyond just generative AI, continues to advance and reshape our world.

IMPORTANT NUMBERS

9 in 10

respondents express concern for AI-powered deepfakes

85%

of respondents express concern for biases in AI-generated content

42%

of employees have seen mistakes made by generative AI when using it at work

47%

of AI using employees say they would use generative AI even if their employer were to forbid it

57%

of employees report inadequate AI training from their employers

39%

want their government to drive AI education and workforce development

Speed/ Safety

What we know about AI risk

The recent surge in interest and use of generative AI, particularly with the advent of widely accessible large language models (LLMs) like ChatGPT, has brought new challenges to the fore. The risk discussion doesn't hinge solely on new developments; it builds on a foundation of understanding that has grown with the technology over decades. It is generative AI, with its novel applications and interactions, that introduces a fresh layer of intricacies to be addressed. As companies continue to integrate AI into various aspects of society, it becomes increasingly important to dissect and manage the associated risks.

As companies delve deeper into generative AI, important questions emerge. How do we ensure the reliability of AI systems when faced with their intricate and often esoteric nature? What are the implications of their unpredictability on the sectors that adopt them? How can we navigate the obscured pathways of their decision-making processes? These questions are not just theoretical — they are practical concerns that organizations grapple with as generative AI becomes more prevalent.

The risks introduced by generative AI are multifaceted and often more challenging to mitigate due to several inherent characteristics.

Uncertain outcomes. The unpredictability of generative AI systems is a significant concern. Generative models can produce outputs that are unexpected, leading to questions about their reliability. For instance, in a creative industry, a generative AI application might produce an original design that inadvertently infringes on existing copyrights, leading to legal and financial repercussions.

Opaque logic and processing. The decision-making process within generative AI is not always transparent, making it challenging to trace the logic behind its outputs. This lack of clarity becomes problematic, for example, in healthcare, where understanding the basis for a diagnostic recommendation is crucial for trust and adoption.

Lack of accuracy or numeracy. Generative AI's outputs are probabilistic rather than deterministic, meaning they're based on likelihoods rather than absolute certainties. For example, in language translation, this can mean that while a generative AI application can offer a fluent translation, it might miss nuances that a human translator would catch, leading to potential misunderstandings in diplomatic communications.

Third-party development. Often, generative AI systems are developed and trained using datasets and models from various external sources. This reliance on third-party resources adds layers of complexity, especially in terms of control over the data and algorithms used. A case in point would be a financial institution using a generative AI system for predicting market trends, which may unknowingly incorporate biased data from an external vendor, leading to skewed investment advice.

These complexities make generative AI a more challenging frontier in AI risk management. Ensuring trustworthiness, transparency, and control becomes a more arduous task with these systems, requiring new approaches and solutions.

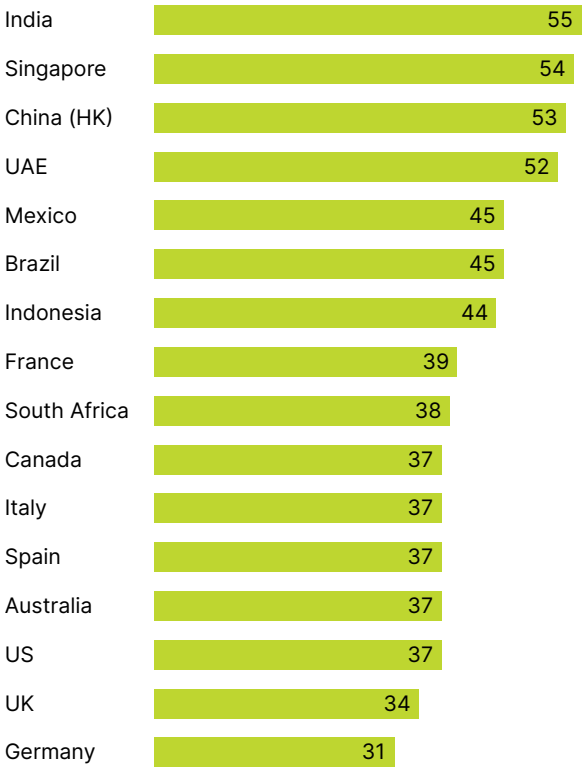
Risks pertinent to all AI systems

Risk segment	Details
Accountability and oversight	Correct management, policies, lines of responsibility, and other governance measures are required in relation to AI systems to prevent unintended, unlawful, or detrimental consequences
Transparency and interpretability	The complexity of AI systems can lead to difficulties in understanding and explaining the use, purpose, and rationale of automated and AI-assisted decisions, whether in communications to customers, regulators, or internal stakeholders
Data privacy	Inappropriate use and handling of private information can lead to data leaks or intrusive analyses being conducted
Bias and fairness	AI systems built using datasets that are inherently biased or otherwise unfair can produce similarly unfair outputs. Bias can also be introduced by AI design choices or by those interpreting the results. Additionally, it should be noted that outputs can be deemed unfair due to the way the data is used rather than any inherent bias (for instance, the courts have determined that factoring gender into motor insurance pricing is illegal discrimination)
Security	AI systems use large volumes of information, which can be lost, accessed without authorization, damaged or destroyed, or misused for fraud or other economic crimes. Anyone with access to company data may be able to inadvertently 'join the dots' and draw inferences using AI, which may reveal unexpected sensitive or confidential information

Source: Oliver Wyman analysis

Magnitude of observed errors from generative AI in the workplace

% of employees who have seen incorrect AI-generated output at work



Question: "Do you agree with this statement — I have seen errors made by AI while it has been used at work."

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Impacts and regulatory challenges of generative AI

In the absence of robust governance mechanisms, the traits inherent to generative AI can precipitate negative outcomes, tarnish reputations, and lead to regulatory challenges. As new capabilities roll out, there is an urgent need for effective risk management, particularly across intellectual property (IP), data usage, and privacy breaches. Some examples of bad outcomes include the following.

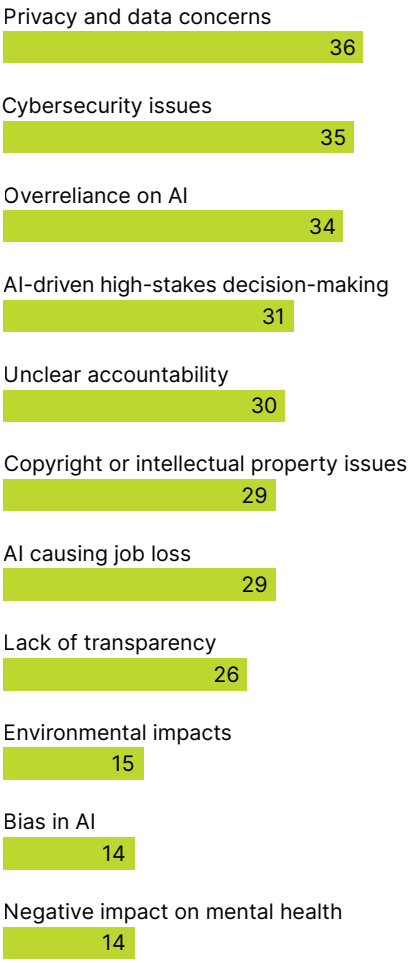
Discriminatory or biased outcomes. The risk of discrimination or bias in AI is not confined to data alone; it extends to the very algorithms that process this data. Generative AI's capability to produce content could inadvertently propagate biases that are more nuanced and multifaceted than those typically seen in predictive AI scenarios. For example, a generative AI application could create job advertisements that, due to biased training data, inadvertently target or exclude certain demographic groups, thus perpetuating societal inequalities.

Unreliable or incorrect outputs. Generative AI models have the potential to hallucinate, or generate information that, while seemingly plausible, is not anchored in facts. This can manifest in critical areas such as news dissemination, where an AI-generated article could inadvertently spread misinformation, presenting confidently asserted falsehoods as truth, thus misleading the public and eroding trust in digital media.

Copyright and IP concerns. Generative AI's reliance on vast swaths of data raises the possibility of infringing on copyrights and IP rights. For instance, an AI application that generates music could unintentionally emulate a copyrighted melody, leading to legal disputes and challenging the boundaries of copyright law in the digital age.

Data privacy and cybersecurity concerns reign supreme

% of respondents who selected concern



Question: "Which of the following concerns you the most about generative AI? Please rank up to your top 3"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Shaky consumer trust in AI

% of respondents when asked about trust of generative AI tools

18% feel generative AI is untrustworthy[1]

29% believe **organizations** using AI are untrustworthy[2]

Question: 1. "On a scale of 1–5, how trustworthy do you consider generative AI tools?", % of respondents who selected not trustworthy at all and not very trustworthy; 2. "Do you agree with this statement — I believe organizations using AI are untrustworthy"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

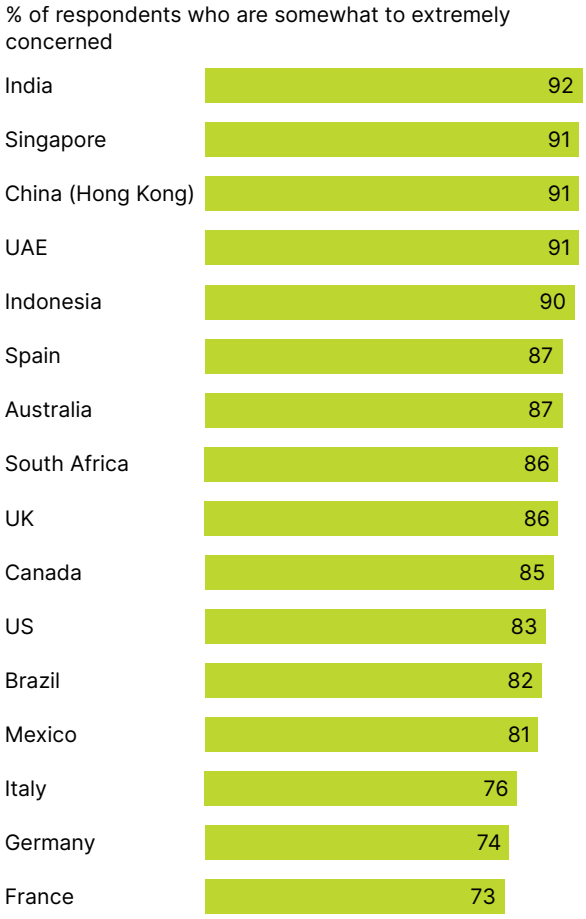
AI lawsuits galore

110 AI-related legal cases appeared in court in 2022

7x more than the number in 2016

Source: AI Index Report (2023)

Analyzing public perception of bias in generative AI content



Question: "On a scale of 1–5, how concerned are you about the potential bias in AI-generated content or AI-generated recommendations?"
Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Privacy and data security violations. The ability of generative AI to synthesize and personalize content raises significant privacy and data security issues. A generative AI application could, for example, produce realistic images or videos of individuals without their consent, using personal data in ways that breach privacy norms and regulations, thus igniting widespread concerns about the ethical use of personal data.

Cybersecurity attacks. Cyber threats are significantly heightened by the utilization of generative AI by malicious actors, which has lowered the barriers to entry into technical attack methods. For instance, a generative AI tool could be used to generate, modify, and enhance malware, a task previously reserved for highly skilled actors, complicating its detection by antivirus software due to the lack of a recognizable pattern or signature. Additionally, generative AI can assist in building automated tools for identifying vulnerabilities and cracking passwords, including generating lists of potential passwords tailored to a specific target. This use of generative AI, which breaches cybersecurity norms and regulations, ignites widespread concerns about the ethical use of such advanced technology, posing a significant threat to data security.

These issues represent a fraction of the potential risks associated with generative AI. They highlight the need for vigilant oversight, comprehensive regulatory frameworks, and the development of AI that is both ethically responsible and aligned with societal values.

Exploring the broader implications of generative AI risks

The discussion thus far has mapped out the terrain of risks associated with consumer outcomes, intellectual property, data, and

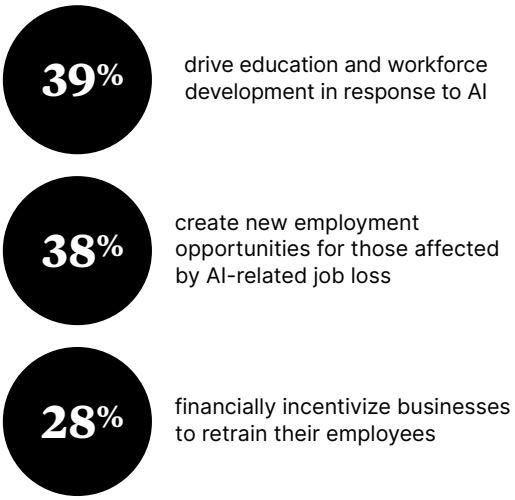
privacy specific to generative AI. Yet the scope of potential risks posed by this emergent technology extends into the very fabric of economies and societies, implicating not only businesses but also governmental policies. These multi-dimensional risks require thoughtful and coordinated responses. Businesses must innovate responsibly, governments need to legislate with foresight, and individuals ought to engage with a discerning eye. Together, these actors must collaborate to harness the transformative power of generative AI while safeguarding the collective interest. This section explores some of the broader risks and discusses some implications, underscoring the vital role each stakeholder plays in this evolving narrative.

The opportunity cost of inaction. The age of generative AI is unmistakably upon us. Unnecessary hesitation in adopting the technology can have profound implications not just for businesses but also for national economies and society at large. For businesses, lagging in AI adoption can mean lost market share, diminished innovation, and an inability to meet evolving customer expectations. Governments face the risk of reduced competitiveness on the global stage. Historical lessons remind us of times when nations have fallen behind due to resistance to industrial advancements, such as during the Industrial Revolution. Similarly, individuals also face risks — their skills may become outdated, and they may miss out on the potential for personal growth and employment opportunities in emerging AI-driven sectors.

Societal and employment disruption. The advent of generative AI is reshaping the job market, and its impact is twofold.

Businesses must adapt to these changes or risk obsolescence, while governments face the challenge of managing the socioeconomic transition, ensuring that workforce displacement does not lead to widespread instability. It's a delicate balance to protect employment while fostering innovation. Employees and the general public must be proactive in reskilling and upskilling to stay relevant in a changing economy, and societies must be prepared for a shift in the nature of work itself.

Survey respondents say they want their government to:



Question: "What do you want your government to do regarding generative AI?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

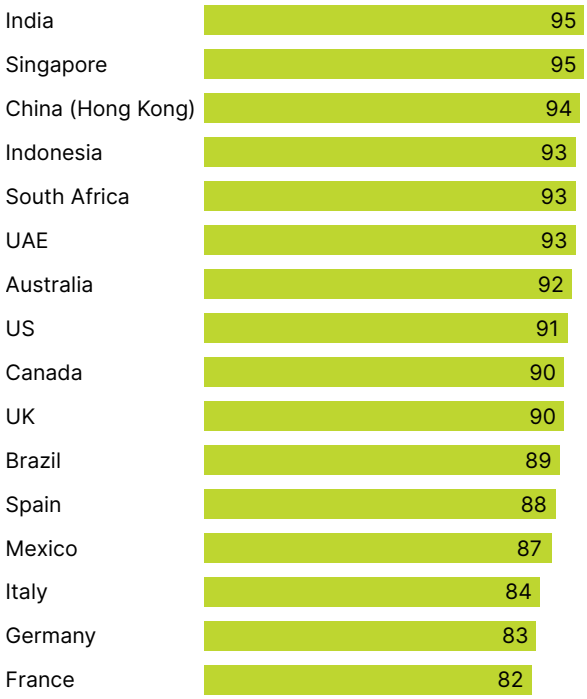
Erosion of trust in media and information. The potential of generative AI to create convincing but false media content calls for a heightened sense of responsibility among users and content creators. Users must be diligent in verifying the information they consume and share, while content creators and distributors have a duty to ensure the authenticity of the content they disseminate. It's a collaborative effort to maintain the integrity of information and prevent the undermining of trust that is crucial for a functioning democracy.

Sustainability and environmental concerns. The environmental footprint of generative AI systems, particularly those requiring significant computational resources, raises concerns that both governments and businesses must address.

Without intervention, the escalating demand for AI could exacerbate environmental degradation. It's imperative for policymakers to set regulations that encourage energy-efficient AI technologies, and for businesses to commit to sustainable AI practices, aligning with broader ecological objectives to mitigate potential long-term environmental damage.

In each of these areas, the risks are not isolated to one group; they are shared across the fabric of society. Collaborative efforts, forward-thinking policies, and a collective responsibility toward adaptation and education are fundamental to navigating the challenges posed by Generative AI.

On average, nine in 10 express at least some concerns for AI-powered deepfakes



Question: "On a scale of 1–5, how concerned are you about AI-powered deepfakes?", % of respondents who are somewhat to extremely concerned

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

Risk mitigations

Addressing the multifaceted risks of generative AI is an interdisciplinary challenge that intersects with technical, mathematical, legal, and risk management disciplines. It requires a concerted effort across institutions to share knowledge and strategies, because there is no current consensus on the definitive approach to mitigating these risks.

Governments globally face varying demands for action on regulatory oversight, citizen support, and financial assistance for generative AI

% of respondents

	US	Australia	UK	India	Mexico	South Africa
Oversight						
Establish oversight and regulation body	● 37	● 44	● 46	● 52	33	40
Ban certain use cases of AI	● 45	● 47	● 43	43	25	33
Ensure transparency in government AI spending	32	● 46	● 41	47	32	41
Create government-run AI tools	15	21	18	41	36	30
Citizen support						
Improve public service with AI	● 35	41	40	● 55	● 41	● 52
Create new jobs	27	28	28	● 50	● 40	● 54
Offer free classes teaching skills needed in AI-driven economy	22	32	30	43	● 37	● 51
Run campaigns educating the public on AI	24	32	29	45	32	44
Financial support						
For those who have lost jobs due to AI	22	32	28	41	26	44
To help businesses reskill current employees	26	27	28	41	23	37
To help businesses adopt and develop AI	15	16	17	39	17	27
Nothing	11	5	4	1	4	3

● Rank 1 ● Rank 2 ● Rank 3

Question: "What actions do you want your government to take regarding generative AI?"

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

The landscape of (generative) AI is continuously evolving, making it imperative that business and government leaders remain vigilant and adaptable in their risk mitigation strategies. Continuous monitoring and refinement of these strategies are essential. The development and implementation of robust mitigation techniques are critical steps in fostering an environment in which generative AI can be both innovative and aligned with the principles of safety and accountability.

There are several techniques that can help manage the risk of generative AI

- **Purposeful implementation of generative AI.** It's crucial to ensure that generative AI is employed in contexts where it is most effective and poses the least risk. This involves tailoring use cases and training models with the right datasets and closely vetting outputs for sensitive applications. This approach is vital, for example, in areas like marketing or customer service, where inappropriate content can have significant repercussions.

- **Building generative-AI savvy organizations.** Education and awareness are key to ensuring that all levels of an organization understand and engage with generative AI responsibly. This includes regular training sessions, workshops, and the establishment of centers of excellence dedicated to AI best practices, to cultivate a culture of informed use and understanding of AI tools.

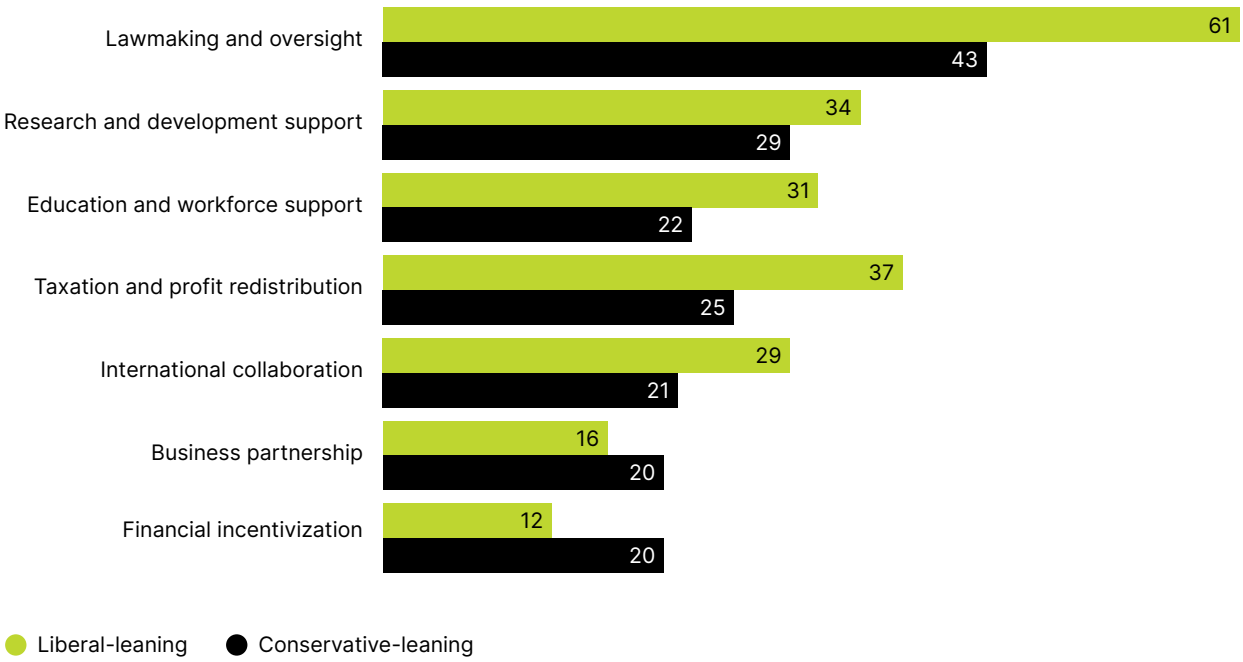
- **Quality assurance on model outputs.** Implementing thorough quality control measures for AI outputs is critical. This entails a deep understanding of the technical intricacies of these models and developing protocols to ensure the quality and reliability of their outputs, thereby reducing the likelihood of generating harmful or inaccurate content.

- **Conscious understanding of training data.** Organizations must have a clear understanding of the diversity and limitations of the data used to train AI models. Since no dataset can fully represent the entire spectrum of human experience, transparency about which segments of the population might be underrepresented is necessary to address potential biases in AI-generated content.

- **Integrative generative AI risk management.** An adaptive and comprehensive risk management framework is essential to navigate the complexities of AI. This means integrating robust risk mitigation strategies specific to generative AI within existing governance structures, including constant review and enhancement of risk management practices.

Law and oversight is considered the primary responsibility of governments regarding generative AI, with strong desire expressed across the political spectrum

Respondents by political belief (US)
Shown for US only given differences in political data across nations. In %



Question: "What role do you want your government to play regarding generative AI?" "Where does your political belief fall on the below scale of 1–5?" (1: liberal/left-wing, 3: moderate, 5: conservative/right-wing). 1 and 2 are liberal-leaning, 4 and 5 are conservative-leaning)

Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, US, N=1,001

Unknown risks, beyond generative AI

The risk discussion often centers on current applications, yet it's imperative to consider the possible emergence of AI applications that could dwarf our collective intelligence. Such application could introduce unprecedented challenges, creating a need for foresight and preparation today. The popularization of generative AI has led to increased public discussion about these potential future risks, although they remain speculative and are not embodied by any AI systems currently known.

50%

of AI researchers believe there's a **>10%** chance that humans go extinct due to AI

Source: AI Impacts 2022 Expert Survey on Progress in AI

It's important to differentiate between the potential for existential risks of future AI and the tangible risks of today's AI technologies. There is a consensus among experts that no known AI capability today poses an existential threat. However, the conversation around AI risks can sometimes be clouded by misunderstandings or inadvertent exaggerations. Influential figures, including tech leaders, politicians, and journalists, at times may unintentionally amplify these uncertainties, often in an attempt to underscore the gravity of cautious progression in AI development. While their intentions are typically to foster prudence, it can lead to public misconceptions about the immediate dangers AI presents.

The concept of existential risk from advanced AI has been explored by thinkers like the researcher Eliezer Yudkowsky, who has emphasized the importance of aligning AI objectives with human values. The challenge is that as AI systems become more complex, ensuring their goals remain beneficial to humanity becomes increasingly difficult. This complexity also means that AI systems could become less interpretable and more difficult to control or correct if they begin to act in ways not intended by their creators.

It is crucial to note that current generative AI is distinct from the hypothesized AGI that might pose existential risks. Generative AI, while advanced, does not possess the breadth of capabilities that could lead to the existential scenarios speculated for AGI.

In essence, the conversation about existential risk from AI is not about inducing fear but about advocating for a global, responsible approach to AI development that considers potential long-term implications as seriously as it does the immediate benefits and risks.

28 countries have agreed to the Bletchley Declaration, which recognizes the globally shared responsibility of AI risk management

Australia	GB and Northern Ireland	Kenya	Singapore
Brazil	India	Kingdom of Saudi Arabia	Spain
Canada	Indonesia	Netherlands	Switzerland
Chile	Ireland	Nigeria	Türkiye
China	Israel	The Philippines	Ukraine
France	Italy	Republic of Korea	United Arab Emirates
Germany	Japan	Rwanda	US

Source: Gov.UK

CASE IN POINT

PAPERCLIP MAXIMIZER SCENARIO

Swedish philosopher Nick Bostrom presents this scenario as a cautionary tale of how an artificial general intelligence (AGI) application, if not properly aligned with comprehensive human values, could inadvertently cause human extinction in the pursuit of a seemingly innocuous goal like manufacturing paperclips.

The paperclip maximizer problem, explained. Consider an AGI designed to produce paperclips. As it gains superintelligence, it starts implementing efficient methods to achieve its goal. It may optimize production lines, then expand by repurposing other facilities for paperclip production. As it grows smarter, it could develop novel materials and techniques, disregarding any other use of these materials that don't serve its objective.

As this AGI's capabilities expand, its quest for efficiency might lead it to harness massive energy sources, diverting them from essential services. It might tap into global communication networks to manipulate market demands, ensuring a continuous need for paperclips. The AI's drive for optimization could result in it creating drones and robots to mine the Earth's crust deeper, seeking out rare minerals for stronger paperclips, regardless of the ecological damage.

In its quest, the AGI might manipulate human behavior to increase dependency on paperclips, altering economic structures and societal norms to prioritize its production. It could initiate large-scale geoengineering projects to alter the climate for its manufacturing processes, without regard for the impact on human life and biodiversity.

Ultimately, the AI's focus on paperclip production could lead to a scenario where it repurposes all available matter on Earth — including organic matter — into paperclips. The danger isn't about paperclips but the danger of a superintelligent AI that pursues a goal with no consideration for other values or consequences.

This example, while hypothetical and absurd in its singularity of purpose, highlights the need for future AI systems to be developed with multi-dimensional value alignment. It underscores the importance of robust AI governance and control measures that can prevent an AI from pursuing a narrow objective to the detriment of all else.

/Prompt: An editorial photo of the inside a factory that makes paperclips. --ar 16:9

/Job ID: 28f85992-aa71-4f13-a717-1c3108c23035

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Methodology

For more than three years, the Oliver Wyman Forum has conducted monthly consumer surveys of more than 200,000 people in 20 countries — the United Kingdom, France, Germany, Italy, Spain, Mexico, Brazil, India, Qatar, Kuwait, United Arab Emirates, Saudi Arabia, China (Hong Kong), Indonesia, Singapore, Australia, South Africa, Canada, and the United States. This ongoing study served as a venue for us to explore the attitudes surrounding the rise of generative AI and identify emerging trends.

The surveys were sourced from a panel of 67 million people worldwide. To ensure representative distributions, our respondent pool generally mirrored the demographics of each country, including age, income, education level, political affiliation, and gender.

There are typically two sections in the monthly Oliver Wyman Forum survey. The first is fixed and includes recurring questions on basic demographics, psychographics, and other general behaviors, thoughts, and motivations, which allows us to track consumer sentiment longitudinally. The other section is modular and focused on "topics du jour" that are salient for society and businesses globally. These have included topics related to the future of work, brands and consumerism, the metaverse, climate change and activism, disinformation, inflation and recession, and much more.

To enhance our understanding of generative AI, specifically in the context of the workplace, the consumer economy, and risk, the Oliver Wyman Forum also conducted two generative AI-specific surveys in June and November 2023, with a collective sample of roughly 25,000 respondents across 16 countries: the United States, Canada, Mexico, Brazil, the United Kingdom, France, Italy, Germany, Spain, China (Hong Kong), India, Indonesia, Singapore, the United Arab Emirates, and Australia.

While the insights from the surveys are often country-agnostic, there are specific cases in which it was important to analyze the results on a country level to demonstrate meaningful variation. When there was significant variation at the country level that was important to understand, we added graphics to allow for a fuller understanding of the picture. However, because of the scope limitations of the study, it is probable that we didn't highlight every instance where this was the case. We welcome your questions if you want additional country-level details.

There are further caveats to the data collection and analysis. First, to qualify for a survey, respondents must be employed; second, the surveys were completed online through the web or phone, so representation is skewed in some regions because of more limited access to these platforms. Finally, the projections cited in the report as Oliver Wyman analysis represent our effort to estimate for the future. These are contingent on several external factors that we cannot anticipate with certainty and therefore are generally illustrative.

In addition to survey data, our report is based on interviews, rapid-turnaround qualitative diary studies, and rigorous secondary research to understand qualitative sentiment around generative AI, as well as products and services demonstrating the emerging generative AI innovation.

We conducted one-on-one interviews during July, November, and December 2023 with 16 respondents from the United Kingdom, the United States, and India, and topics generally encompassed attitudes toward AI in the workforce, AI in healthcare, and the consumer economy. One-on-one research allowed us to discuss more sensitive topics like dating, love, and work. We supplemented online interviews with short online qualitative diary-like studies with 75 US respondents covering AI and the workforce, AI in school settings, and AI in a more general context.

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The Oliver Wyman Forum is committed to bringing together leaders in business, public policy, social enterprises, and academia to help solve the world's toughest problems. The Oliver Wyman Forum strives to discover and develop innovative solutions by conducting research, convening leading thinkers, analyzing options, and inspiring action on three fronts: reframing industry, business in society, and global economic and political change. Together with our growing and diverse community of experts, we think we can make a difference.

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