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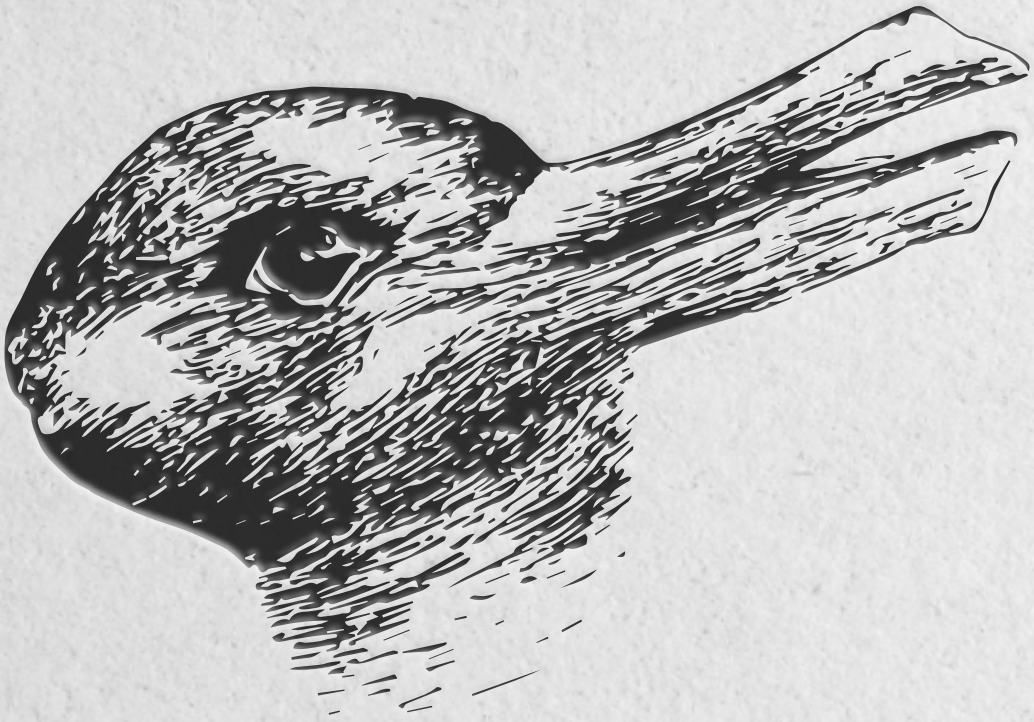
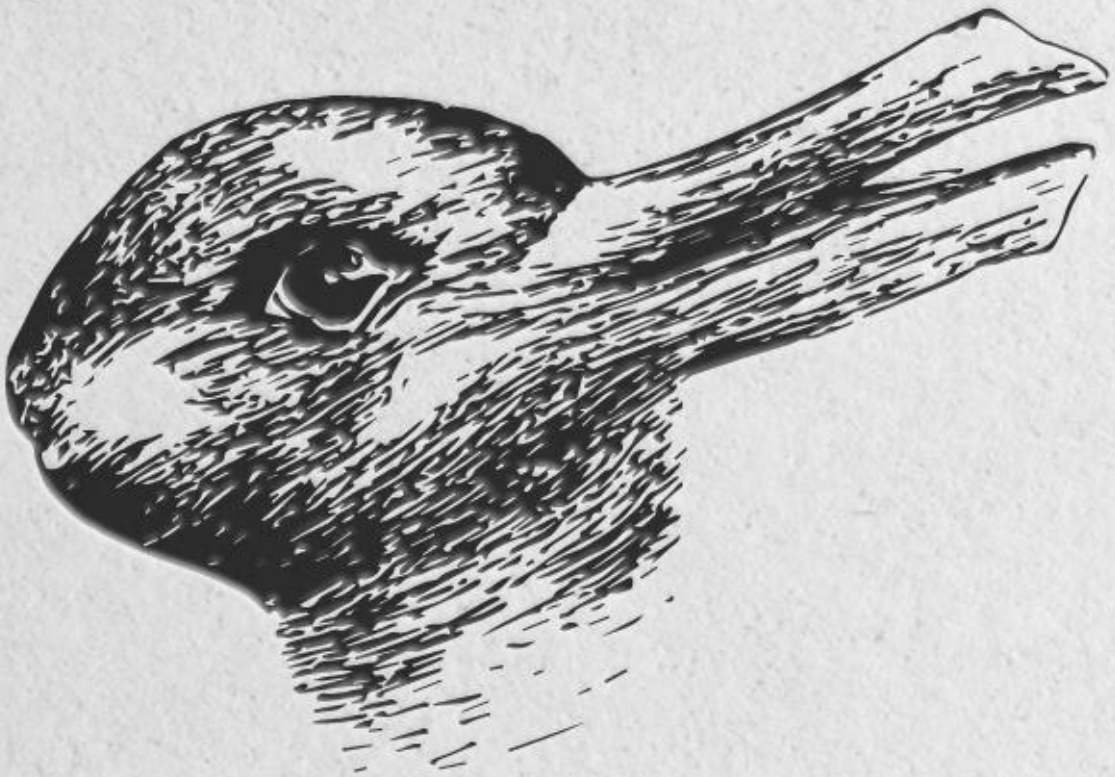


How Generative AI Is Transforming Business And Society

The Good, The Bad, And Everything In Between

奥纬
论坛



生成式人工智能如何改变商业和社会

好的、坏的，以及介于两者之间的一切

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

执行摘要

生成式人工智能会带来生产力的黄金时代，还是会摧毁全球经济中数百万人的生计？它是会让人们走上实现个人价值的新道路，还是会把他们带入孤独寂寞的死胡同？它将把人类提升到新的高度，还是播下集体毁灭的种子？
如果你问谁，答案都是肯定的。

在 ChatGPT 发布后的 14 个月里，人们还不清楚人工智能将如何改变世界，只知道它将对个人、家庭、社会经济群体、企业、行业和社会产生正反两方面的影响，因为它将彻底改变工作场所，重新安排个人生活。

许多突破性技术都有缺陷。火使人类能够在夜间聚集，但也烧毁了村庄。汽车彻底改变了人们的出行方式，但也带来了交通死亡事故。互联网将人们即时连接起来，但也为犯罪分子提供了新的工具。

生成式人工智能与早期创新的主要区别在于，其创造者本身就在警告潜在的弊端。人工智能公司本身就交织着希望与危险的双重因素；OpenAI 的控制权争夺战就是生成式人工智能正在产生的深刻矛盾的一个例子。

但模糊中蕴藏着机遇。生成式人工智能竞赛的发令枪早就打响了，但 ChatGPT 让许多新公司和新国家加入了这场竞赛。企业和政府领导人将决定有多少开发工作是开源透明的，有多少是闭源专有的。监管机构将决定行动的速度和广度。消费者和工人将成为技术应用的核心，并将帮助决定如何快速获得收益。

有鉴于此，奥纬论坛开始深入研究人们对生成式人工智能的态度、看法和误解。6 月和 11 月，我们对美国、英国、加拿大、墨西哥、巴西、法国、意大利、德国、西班牙、中国（香港）、印度、印度尼西亚、新加坡、阿拉伯联合酋长国和澳大利亚的 25000 多人进行了调查。

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.

调查结果凸显了许多人的困惑。96%的员工表示，他们相信人工智能可以帮助他们胜任目前的工作，但也有60%的人担心人工智能最终会让他们自动离职。约 55% 的员工每周至少在工作中使用一次生成式人工智能，但 61% 的用户认为它并不十分可信。在这 61% 的用户中，40% 的人还是会使用它来帮助自己做出重大财务决策，30% 的人愿意分享更多个人数据以获得更好的体验。

在众说纷纭的预测声中，全世界越来越多的人一致认为，生成式人工智能将对工作场所和消费者经济产生巨大影响。

新的人工智能经济

我们估计，到 2030 年，人工智能将为全球 GDP 带来高达 20 万亿美元的增长，每年可节省 3000 亿个工时。

可能性非同寻常。在我们调查的员工中，有96%的人表示，他们相信人工智能可以帮助他们完成工作。但是，随着人工智能重塑工作场所，它可能会给组织结构带来新的压力。根据世界经济论坛（World Economic Forum）的估计，到 2025 年，人工智能这一大类将取代全球 8500 万个工作岗位。三分之一的初级职位可能会实现自动化；与此同时，掌握了生成式人工智能的初级员工可能会取代他们的基层管理者，从而在工作金字塔的中部留下真空。

因此，许多工人的焦虑与日俱增。自动化不再是蓝领工人与机器人的对立。五分之三的白领工人现在担心，随着人工智能的生成能力对知识型工作的影响越来越大，他们的角色将变得多余或自动化。如果任由这种焦虑情绪发酵，可能会消磨士气：根据美国心理学协会（American Psychological Association）的研究，在美国，担心人工智能的员工在工作日感到紧张或压力的可能性比不担心的员工高 68%，认为自己对工作社区不重要的可能性是不担心的员工的两倍多。

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

这种感觉反过来又会导致参与度和生产率下降，以及更高的人员流动率。

要想获得生成式人工智能所能带来的好处，企业应采取以人为本的方法，对员工的投资与对技术的投资一样多，甚至更多。员工需要培训和支持，才能在使用技术的同时创建合理、直观的流程。毕竟，使用界面、更新系统和管理产出的都是他们。企业领导者需要通过倾听和解决他们的关切，并在此过程中提高/培训员工，从而带动他们的积极性。

为消费者带来彻底改变

当我们研究人工智能对消费者的影响及其在各行各业的广泛影响时，生成式人工智能的图景就会变得更加清晰。医疗保健行业的颠覆时机似乎尤为成熟。我们估计，到 2030 年，人工智能生成技术每天可为医生节省 3 个小时，这将使他们每年在全球范围内多为 5 亿病人提供服务（假设提高的生产率用于服务更多病人）。
同样，我们估计多达 4 亿名患者将因生成式人工智能治疗服务而获得心理健康支持，从而实现普及并激发全球兴趣。消费者尤其渴望首次体验生成式人工智能疗法：在 77% 从未接受过人工治疗的受访者中，近三分之一的人表示将来会尝试生成式人工智能疗法。

生成式人工智能也正在成为值得信赖的建议来源。近一半的消费者表示，他们会在买房等重大人生决策上相信人工智能。约 36% 的人表示，在财务建议方面，他们更愿意选择人工智能而非人类，这表明，即使是在解决传统的人类需求时，生成式人工智能也能提供广泛的服务。与人类财务顾问相比，消费者更愿意与人工智能财务顾问接触，以寻求联系；与人工智能财务顾问接触时，他们在个人财务中寻找目标感的可能性也几乎是与人类财务顾问接触时的四倍。

教育是另一个可能受到影响的领域。在全球 2.6 亿失学的学龄儿童中，我们估计将有多达 1 亿人通过生成式人工智能

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.

获得教育机会，因为生成式人工智能能够提供普遍的个性化辅导。例如，"你好，历史 "等应用程序可以让学生与亚里士多德进行哲学辩论，或从查尔斯-达尔文那里了解生物进化的复杂性。

有朝一日，生成式人工智能甚至会改变人们建立关系的方式，无论好坏。约有14%的消费者表示，他们更喜欢与人工智能互动，因为他们相信人工智能在情感方面比人类更聪明。像Replika这样的应用程序正在重新定义伴侣关系，让用户可以创造出随时倾听的虚拟朋友。五分之一的消费者表示，他们愿意与人工智能角色进行虚拟约会。近三分之一的消费者表示，他们会购买人工智能宠物项圈，将动物的声音转化为语言，从而进一步加强宠物与主人之间的联系。

风险与回报的讨论是错误的

生成式人工智能给企业带来了越来越复杂的管理风险。其中许多风险已为人们所熟知：可能的幻觉、变幻莫测的黑盒逻辑系统、网络攻击的风险、数据泄露、训练不当的模型、输出控制、版权问题等等，不一而足。还有一些尚未被想象到；正如人类正在开发生成式人工智能系统一样，该系统也将改变人类，并可能带来不可预见的后果。

公司和社会必须抛开风险或回报的问题，接受建立在测试、平衡和学习的动态模式上的风险和回报的未来。雇主和雇员、消费者和政府现在形成的态度和信念将反馈到这些模式中，并帮助塑造这个未来。

在接下来的篇幅中，我们将深入研究调查数据，指出答复中的惊喜和矛盾之处，并就生成式人工智能的发展方向以及它将如何影响全球企业、员工和消费者提出我们的最佳看法。

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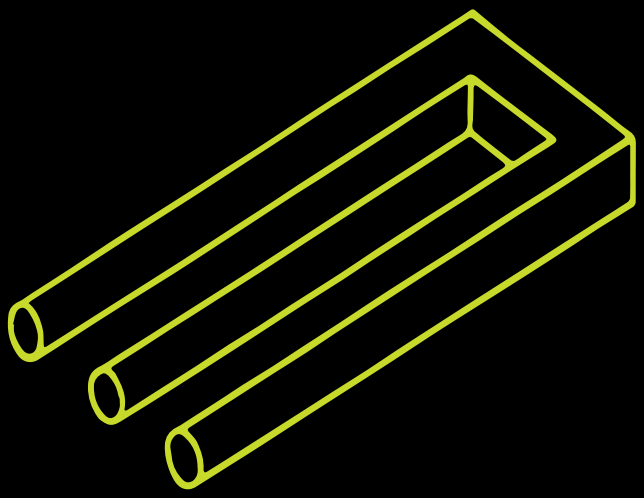
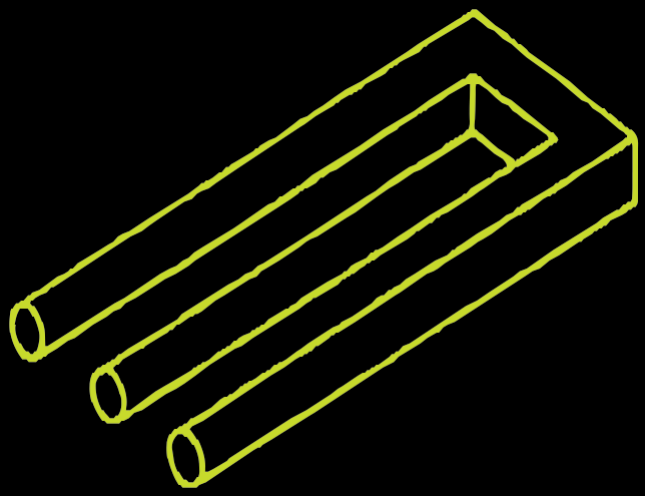


Introduction

RISK AND REWARD / Exploring the dualities of generative AI



导言

风险与回报 / 探索生成式人工智能的双面性

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

回报风险

革命，而非进化

在生物学中，“间断平衡”模型认为，进化是在长期几乎没有变化的情况下突然爆发的。在技术领域也有类似的情况，渐进式的进步偶尔会被具有巨大颠覆性的创新所打断，从而改变社会。生成式人工智能（AI）就是这样一种进步，它将重塑行业和生活。问题是如何重塑。

生成式人工智能正在改变着一切，并无处不在

人工智能已经存在了几十年，但随着 2022 年末 ChatGPT 的推出，它的受欢迎程度急剧上升。它迅速开始重塑各行各业，为日常任务提供动力，并增强定义现代生活的产品。看似神奇的深度学习算法实际上能够让生成式人工智能在没有人类干预的情况下不断自我优化。例如，DeepMind 的蛋白质折叠人工智能通过自学物理和化学原理，让专家们大吃一惊，使其能够比人类专家更好地预测蛋白质结构。随着这些网络的发展，唯一的问题将是生成式人工智能能在多大程度上、以多快的速度扩大其统治范围。

生成式人工智能为创新的蓬勃发展提供了工具和平台

生成式人工智能的应用范围非常广泛，从医疗保健、金融到教育和艺术，它打破了"一刀切"的解释。

在交通领域，有朝一日可能会出现一个由人工智能驱动的生成式城市领域，它能动态调整信号和路线，提高安全性并消除交通堵塞。在教育领域，生成式人工智能可以根据学生的独特风格、需求和愿望提供个性化的课程，实现学习的民主化。

我们的调查对象也迫切希望看到人工智能加速医疗保健领域的进步，也许他们会设想在未来提供个性化诊断和治疗。

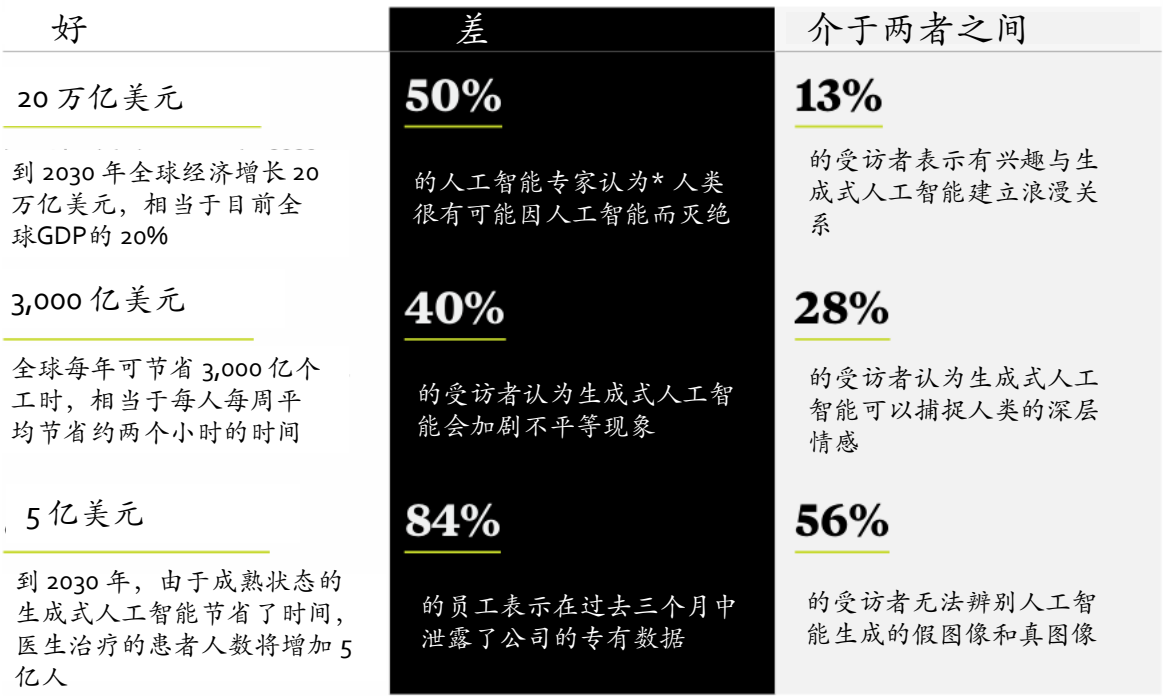
Will generative AI be a force for:

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

生成式人工智能是否会成为一种力量:



*>10% 的几率（被认为是"高"，因为它涉及到生存风险，有可能造成灾难性后果）

资料来源：奥纬论坛，《2022 年人工智能影响》，《人工智能进展专家调查》。

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

人工智能已经应用于各行各业，而过去这些行业只能依靠人工而不是机器。作家、有影响力的人物和艺术家现在都可以利用人工智能生成技术来帮助他们完成作品。但它也导致了抄袭、错误和失业。在这里，生成式人工智能的双面性得到了充分体现：这项技术有望消除数百万小时的琐碎重复性工作，但同时也有可能淘汰那些受益于其生产力的作者。

我们该何去何从?
生成式人工智能的到来为人类带来了难以置信的机遇（同时也带来了一些问题，这些问题经常会得道一些答案和导致更多问题）。在接下来的章节中，我们将探讨生成式人工智能对劳动力和消费领域的变革性影响、潜在机遇和隐藏风险。

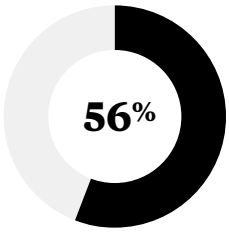
人们对人工智能在各行各业加快人类进步的潜力寄予厚望
认为人工智能将在未来30年帮助改善以下方面的受访者百分比

问题"您认为在未来 30 年内，人工智能对以下哪些领域的改善帮助最大？“
资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

Real or AI? Most can't tell

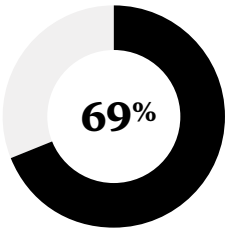
We asked respondents whether they think the following images are photographs of real-life objects/sceneries or created by generative AI

AI



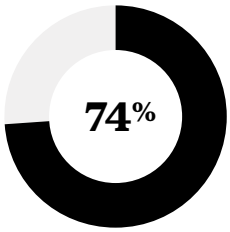
got it wrong

AI



got it wrong

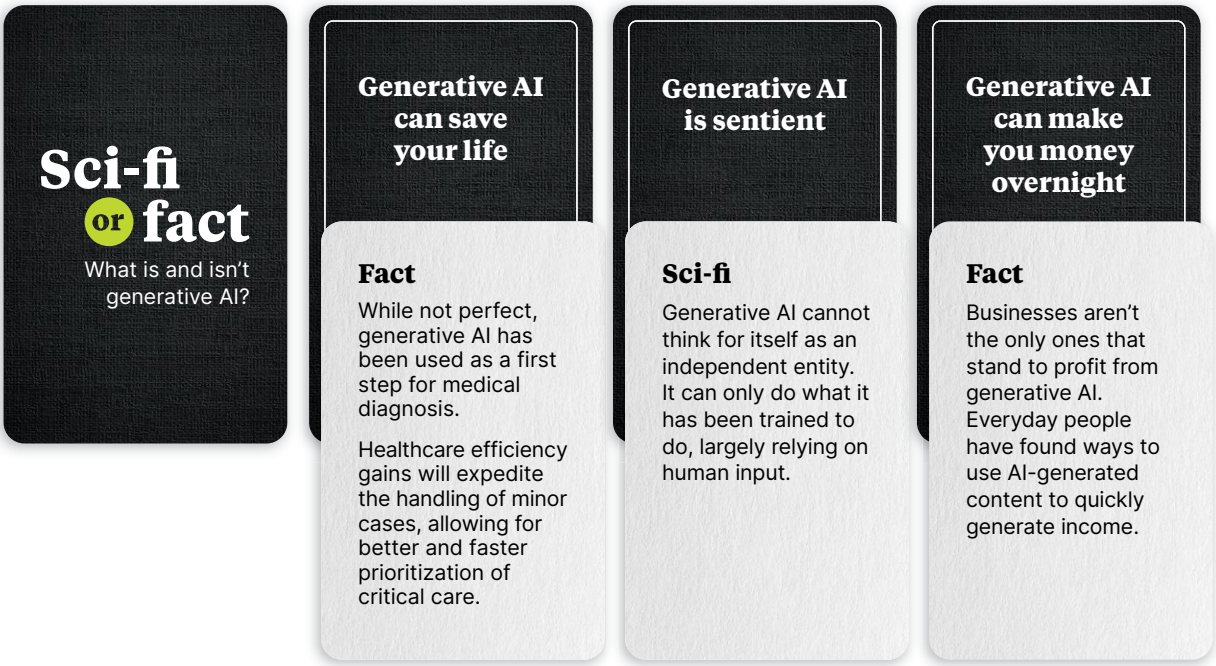
Real



got it wrong

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

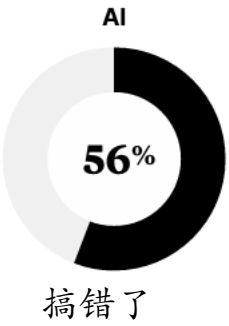
Sci-Fi or fact: What is and isn't generative AI?

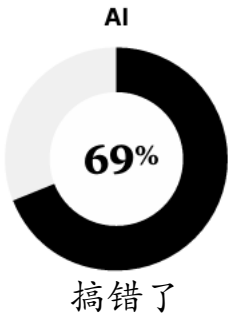


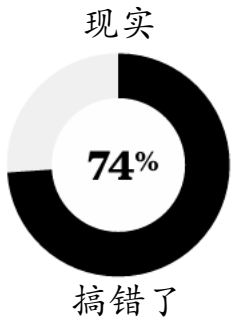
Source: Oliver Wyman Forum analysis

真实还是人工智能？大多数人无法分辨

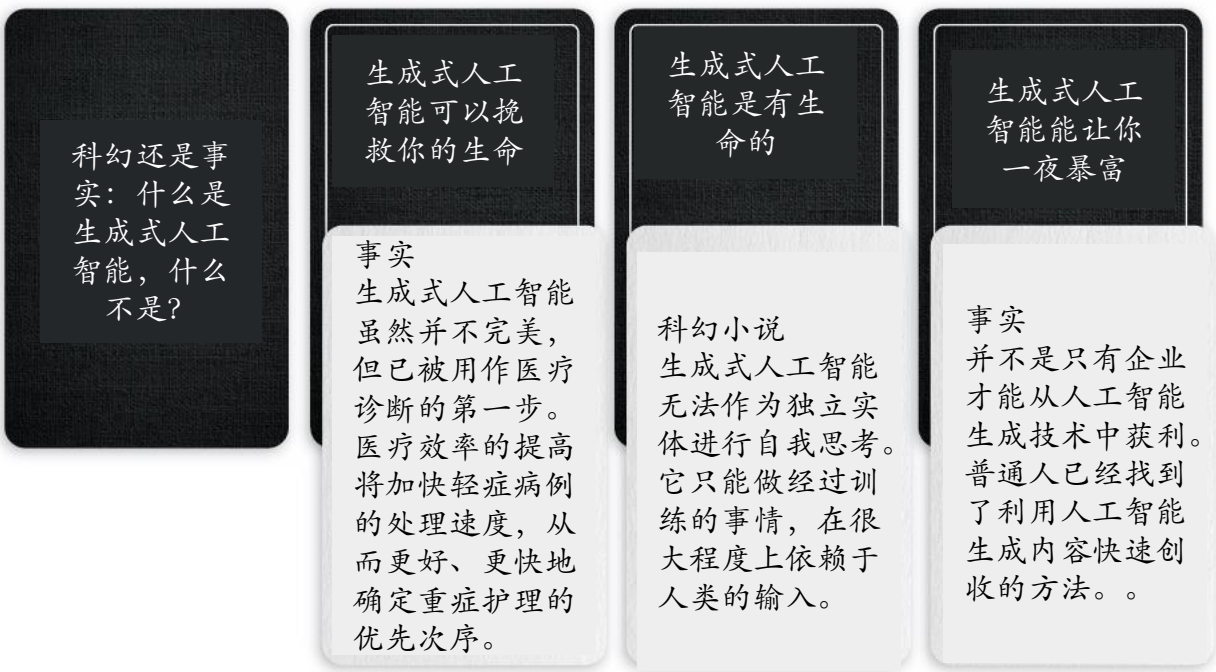
我们询问受访者，他们认为以下图片是真实物体/风景的照片，还是人工智能生成的图片



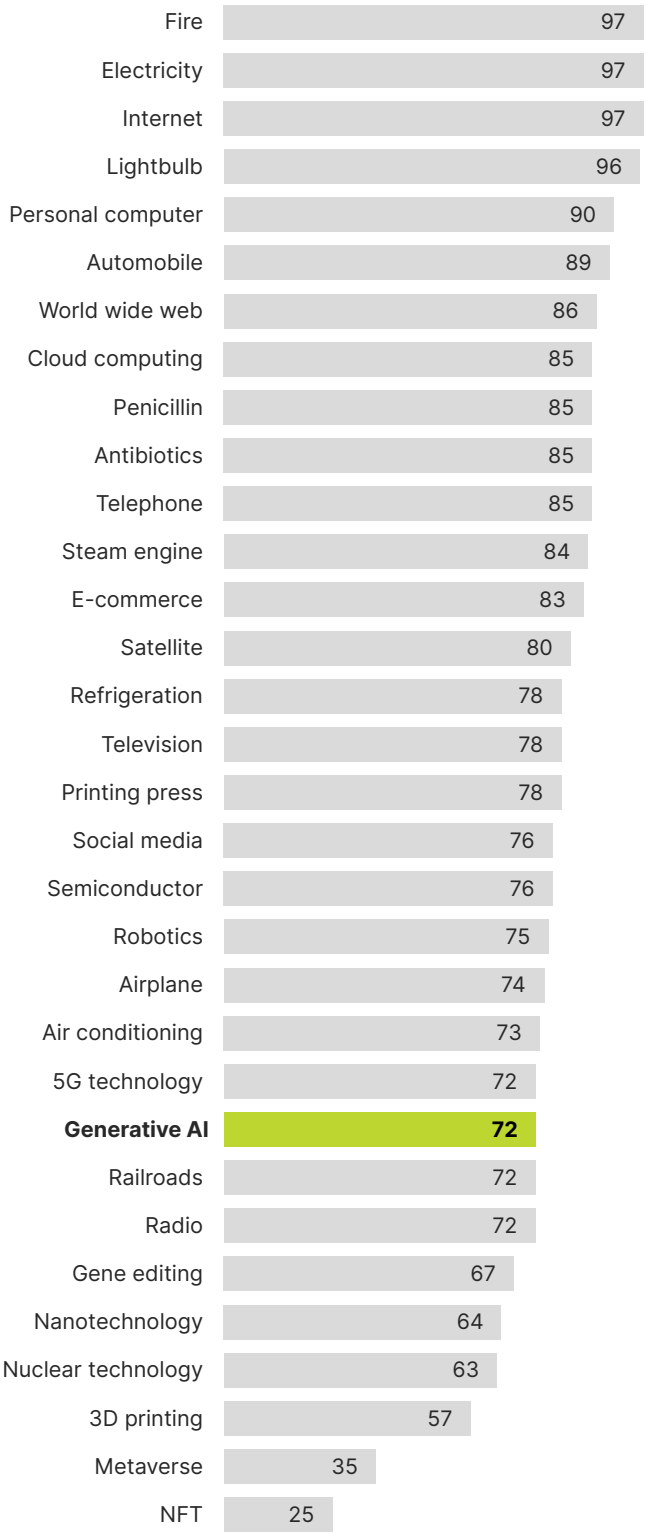




资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033



资料来源：奥纬论坛分析



Note: Impact on humanity score 0–100

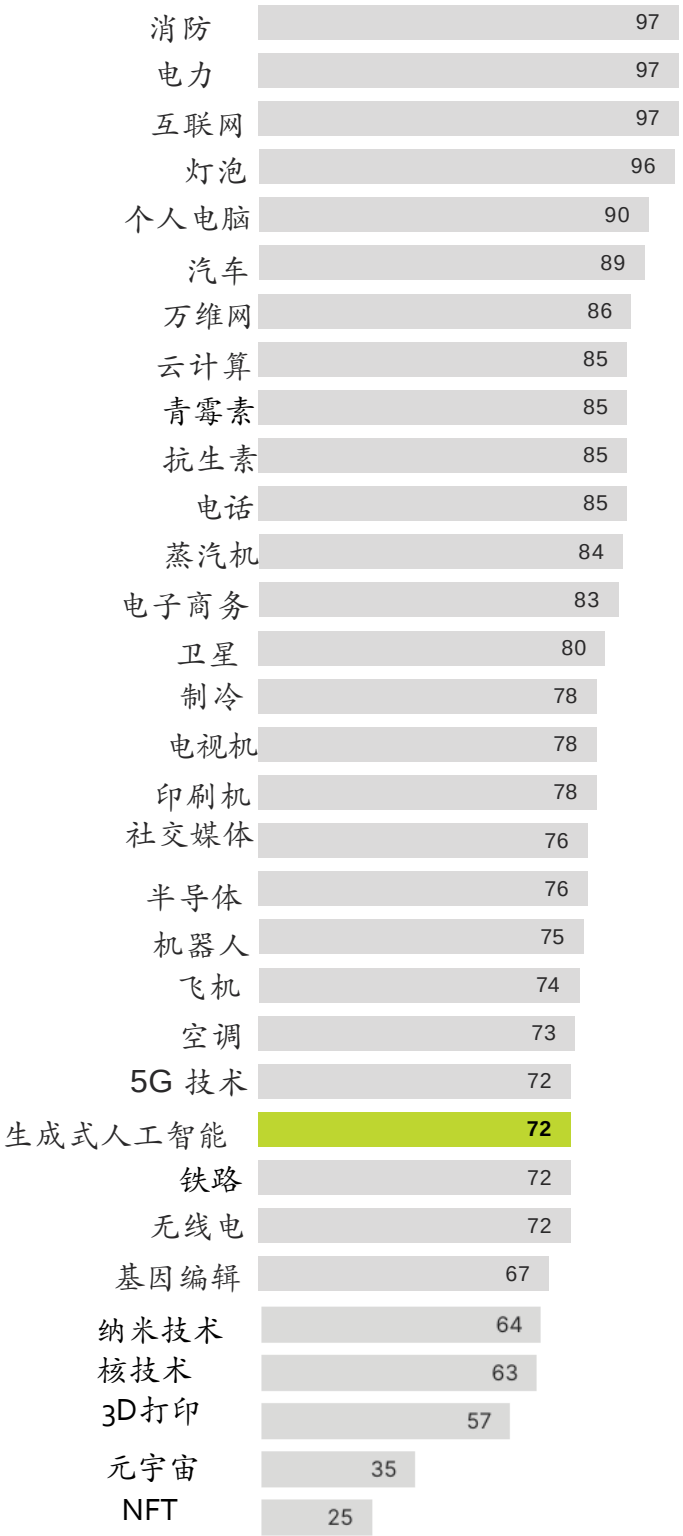
Source: ChatGPT 4.0

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.



注：对人类的影响得分为 0-100 分来源：ChatGPT 4.0

生成式人工智能认为自己在其他创新技术中的位置如何？

这项技术如果不说大胆的话，那就是一无是处。我们最近询问了最著名的应用程序，ChatGPT，以评估生成式人工智能相对于历史上最有影响力的技术的位置。它将自己排在第25位，介于铁路和5G之间。时间将告诉我们这是虚张声势还是谦逊。

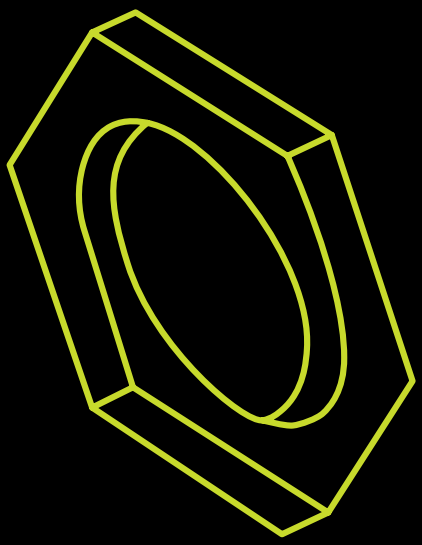
同样有趣的是，ChatGPT如何评价其他发明，认为电子商务胜过空调，云计算高于飞机。对这些技术奇迹进行排名是一个棘手的问题，因为每一项都在世界上留下了不可否认的印记。尽管如此，这仍是一个有趣的练习：这些排名是对过去的反映、对未来的预测，还是生成式人工智能自身愿望的映射？

提示：考虑人类历史上最具影响力的前 50 项技术，考虑因素包括但不限于其对人类的创新贡献、经济影响以及社会和文化影响。给每项技术打 1-100 分，其中 1 代表影响微不足道，100 代表历史上最具影响力。

> 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)

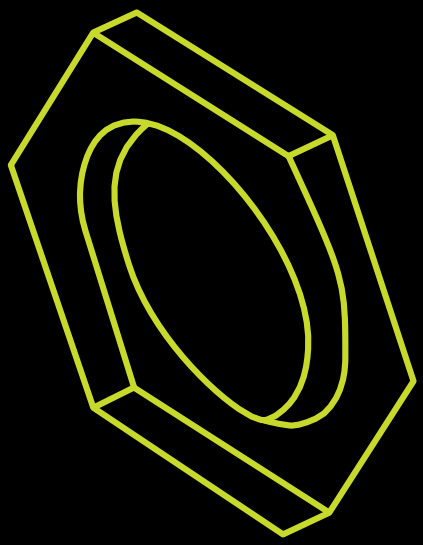
> 人工智能既能给我们带来最狂野的梦想，也能带来最糟糕的噩梦。对于人类来说，这是一个决定如何利用这一技术以及如何相互对待的关键时刻。
>
> 美国生物技术学家（男性，58岁）



Workforce

HOW GENERATIVE AI IS CHANGING THE NATURE OF WORK /

Navigating the transformation to come



劳动力

新一代人工智能如何改变工作性质？

驾驭即将到来的变革

/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.

/ 生成式人工智能如何改变工作性质

生成式人工智能可能会改变全球经济中的工作场所。它正在引发一系列反应，从对无与伦比的生产率提高和创造力扩大的乐观态度，到对失业和人们生活目标感的担忧。

在各个行业中，生成式人工智能已经在增强人类能力。法律公司使用它来综合案例法律；市场营销人员利用它进行目标化的活动；科学家利用它加速发现。然而，生成式人工智能的大规模采用并不自动保证生产力的大规模提升。从印刷术、蒸汽机到电力和互联网，历史上一些最伟大的创新在给生产力带来革命性变化的同时，也带来了新的隐患。工业革命推动了社会的进步，但也滋生了对员工的剥削和动荡，企业主获得了不成比例的收益。早期的汽车技术进步让汽车大亨们赚得盆满钵满，同时也取代了马车夫。鲸油工业随着爱迪生的电灯泡而崩溃，谁又能忘记 Netflix 的 DVD（以及后来的流媒体）击退了 Blockbuster?

生成式人工智能不仅预示着生产力的激增，还要求对工作的本质以及支持工作的劳动力和社会结构进行全面的重新审视。企业和政府领导人需要在进步与社会需求之间取得平衡。

在这一过程中，有些部分似曾相识，有些则是未知的。电脑和手机等传统技术更具确定性，输入和输出之间有着明确的关系。生成式人工智能的自学习算法带来了一个全新的复杂世界，导致结果更难以预测和管理。

话说回来，企业已经花费了几十年甚至上百年的时间，开发并完善了管理另一种不可预测因素的方法：人。要开发生成式人工智能，除了纯粹的数字思维外，还需要一些模拟思维；除了冷冰冰的精确度外，还需要一些人性的温暖；此外，还需要从人的治理和管理方法中吸取经验教训，并将其应用到与机器共同驾驶的世界中。将类似人类的思维、技能和经验融入生成式人工智能所引领的变革的能力，将使成功的公司在未来的岁月中脱颖而出。

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

一些重要的数字

20 万亿美元

到 2030 年，为全球 GDP 带来（20%）的增长

3000亿

全球每年节省 3,000 亿个工时，相当于每人每周平均节省约两个小时的时间

超过50%

的员工表示他们每周都会在工作中使用生成式人工智能

96%

的员工表示生成式人工智能能为他们的工作带来益处

60%

的白领表示，他们担心自己的工作会被裁员或自动化

57%

的员工表示他们目前没有从雇主那里获得足够的人工智能培训

30%

的求职者因生成式人工智能而开始寻找新工作

40%

到 2035 年，发达国家的劳动生产率将提高40%

资料来源：奥纬论坛分析、Frontier Economics 和埃森哲。

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.

潜力/

生成式人工智能的生产力潜力是什么，雇主和员工如何才能实现它？

潜力：生产力的黄金时代

生成式人工智能对生产力的影响可能与历史上最伟大的创新飞跃一样具有变革性，类似于印刷机革命、互联网革命和流水线革命。除了对全球经济的潜在影响外，随着劳动生产率的飙升，生成式人工智能每年还能节省 3,000 亿个工时。

同时，通过将常规和枯燥乏味的任务自动化，生成式人工智能可以让工人有更多时间专注于工作中的思考和创造性方面。这种新兴的生产力范式可能标志着一个以工作的新颖性和独创性来衡量工作价值的时代的到来，它为人类与人工智能之间的合作创造了可能性，并打破了我们目前对生产力定义的障碍。

生成式人工智能迅速席卷全球劳动力市场

尽管生成式人工智能已有 50 多年的历史，但直到 ChatGPT 推出后，各行各业的员工才开始热情拥抱它。根据皮尤调查公司（Pew Research）的数据，半数美国人花了二十多年才使用智能手机，而根据美国国家公园管理局（National Park Service）的数据，美国人花了将近两倍的时间才在家里用上电。然而，在短短几个月内，ChatGPT 和新的生成式人工智能工具就吸引了全球约一半劳动力的注意力。

从国家到国家：生成式人工智能超越国界的影响

从历史上看，电力、汽车和计算机等新技术最初都集中在某些地区，其他地区的接受速度较慢。

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)

未来工作愿景 1

点燃新的生产力革命

在不太遥远的未来，我们在繁华的纽约遇到了一位投资银行家 Sarah。当 Sarah 启动工作站时，ForumAI 问候她早安。

为了开启 Sarah 的新一天，ForumAI 提醒她手头的艰巨任务：为一位高端客户制作一份投资计划演示文稿。在 Sarah 的命令下，ForumAI 制作了一个思维导图模板，并预先填充了基于以往成功演示的建议。这激发了 Sarah 的创造力，她与 ForumAI 分享了自己的投资计划，将 ForumAI 视为值得信赖的合作者，而不仅仅是一台机器。作为回应，ForumAI 会对 Sarah 的想法提出质疑，并揭示隐藏的缺陷。Sarah 对不断变化的金融环境有着敏锐的洞察力，她要求 ForumAI 深入研究一项新法规。转瞬之间，ForumAI 就公布了大量文件，证实了 Sarah 的论点的正确性。这让Sarah对ForumAI迅速而准确的帮助感到欣喜。在无可辩驳的证据支持下，他们共同编织了一张精心制作的思维导图，准备吸引听众。

Sarah 手中拿着大纲，将工作站切换到演讲模式，开始与 ForumAI 讨论演讲的背景和听众。这个工具是视觉叙事的能手，它为她的屏幕增添了万花筒般的生动图表。过去，Sarah需要花几个小时让初级银行家起草幻灯片，然后进行一轮又一轮艰苦的审查和修正。但有了ForumAI的帮助，最终的演示文稿很快就能熠熠生辉。

离开办公室时，Sarah 对自己制作演示文稿的速度非常满意，并对 ForumAI 带来的效率和准确性的提升赞叹不已。从提高工作效率的速度来看，ForumAI 不仅仅是一个工具，更是一个值得信赖的合作伙伴。

> **工作十年后就会过时。我一直在研究人工智能，以便尽快教会它做我的工作。**
>
> 软件工程师，英国（男，32 岁）

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.

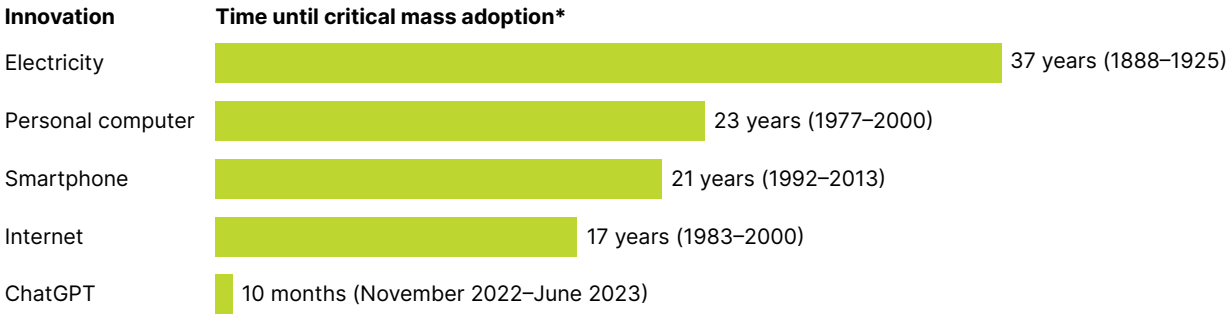
In some nations, generative AI has become so deeply embedded into everyday tasks that it is almost as instinctive for people as checking email in the morning or taking that first sip of coffee before work. Propelled by the top-ranking AI skills penetration as tracked by the Organization for Economic 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

但是，生成式人工智能在全球的普及速度就像病毒式媒体一样快：印度的软件程序员与泰国的建筑工人或巴西的银行家一样，都乐于接受人工智能。

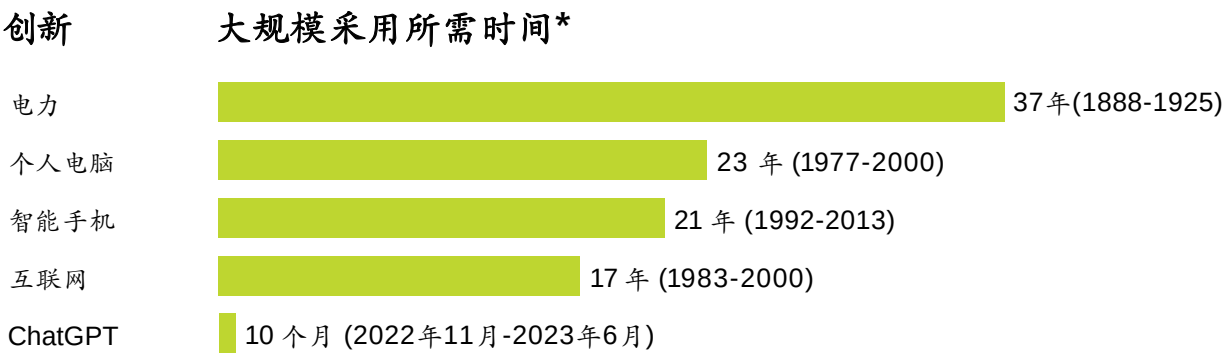
在一些国家，生成式人工智能已经深入到人们的日常工作中，几乎就像早上查看电子邮件或上班前喝第一口咖啡一样，成为人们的本能。在经济合作与发展组织追踪的人工智能技能普及率排名第一的推动下，印度在我们调查的所有员工中的每周采用率已跃升至83%，略高于《Slack 工作状态报告》中报告的 75%。（Slack 是一个工作效率管理平台，让每个人都能够使用无代码自动化和 AI 功能，还可以无缝连接搜索和知识共享，并确保团队保持联系和参与。）与此同时，阿拉伯联合酋长国（UAE）和印度尼西亚政府正通过各种举措，如阿联酋的《2031 年国家人工智能战略》（National AI Strategy 2031）和印度尼西亚的《2020-2045 年国家人工智能战略》（National Strategy on AI 2020-2045），显示出对新一代人工智能的坚定承诺。即使在澳大利亚和加拿大等采用率较低的国家，也有超过三分之一的员工每周至少使用一次生成式人工智能，近 10% 的员工每天使用。.

生成式人工智能打破了各工种的速度限制

生成式人工智能的传播不仅在地域广度上令人印象深刻，而且在跨行业采用的速度上也令人印象深刻。从 6 月到 11 月，生成式人工智能在所有工种中的应用都呈爆炸式增长，白领、蓝领和粉领（传统上由女性承担的工作）员工的使用率总体增长了 62%。在人工智能采用率最低的行业中，从医疗保健人员到公共部门官员，超过三分之一的员工表示至少每周使用一次人工智能。

从开始到整合

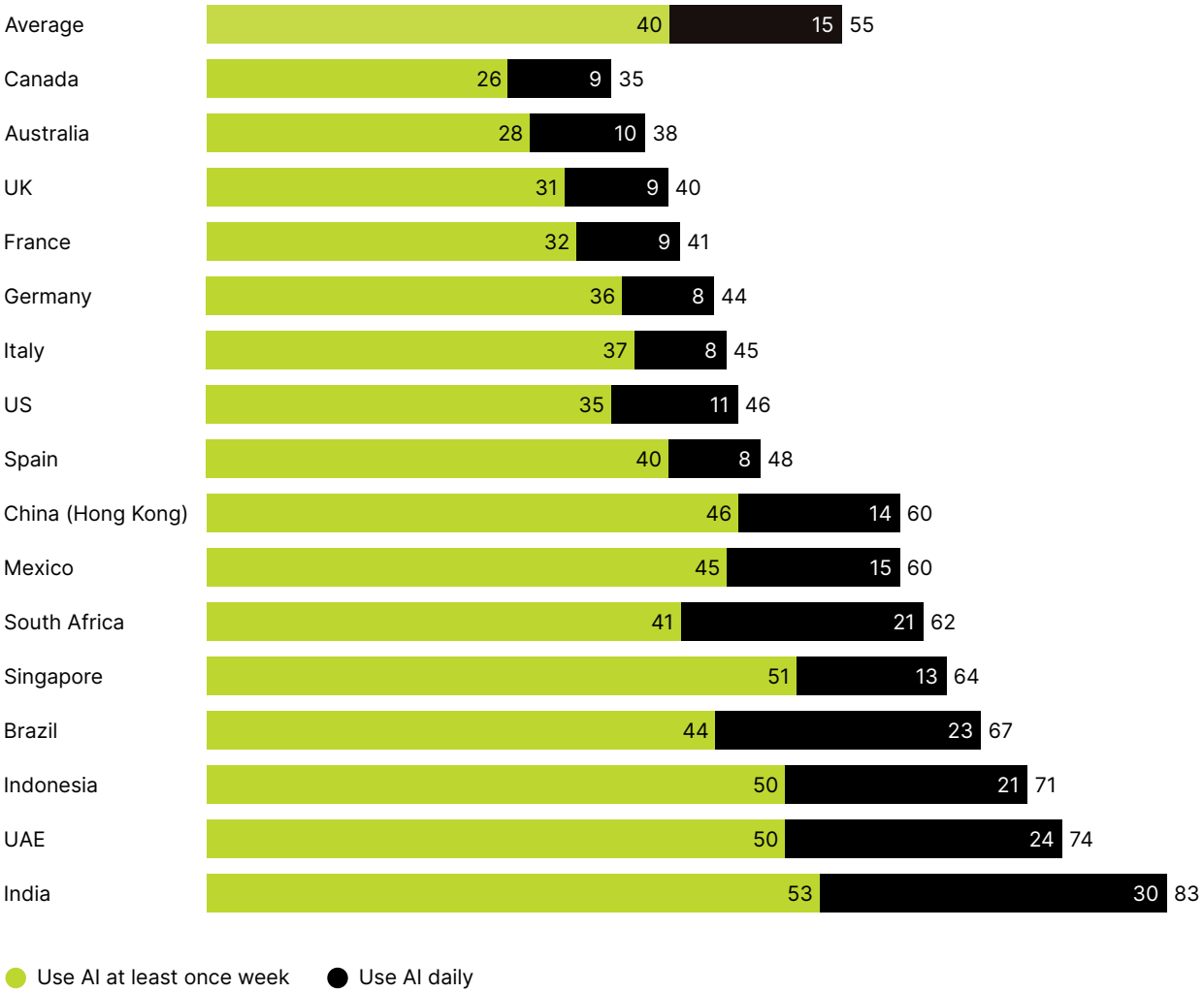
与其他现代创新相比，ChatGPT 更快地达到了临界应用水平



注：大规模采用基于美国超过 50%的采用率，ChatGPT 的采用数据来自 Oliver Wyman 论坛关于生成式人工智能工具（如 ChatGPT）使用情况的调查。来源：奥纬论坛分析

Generative AI use skyrockets across the world

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

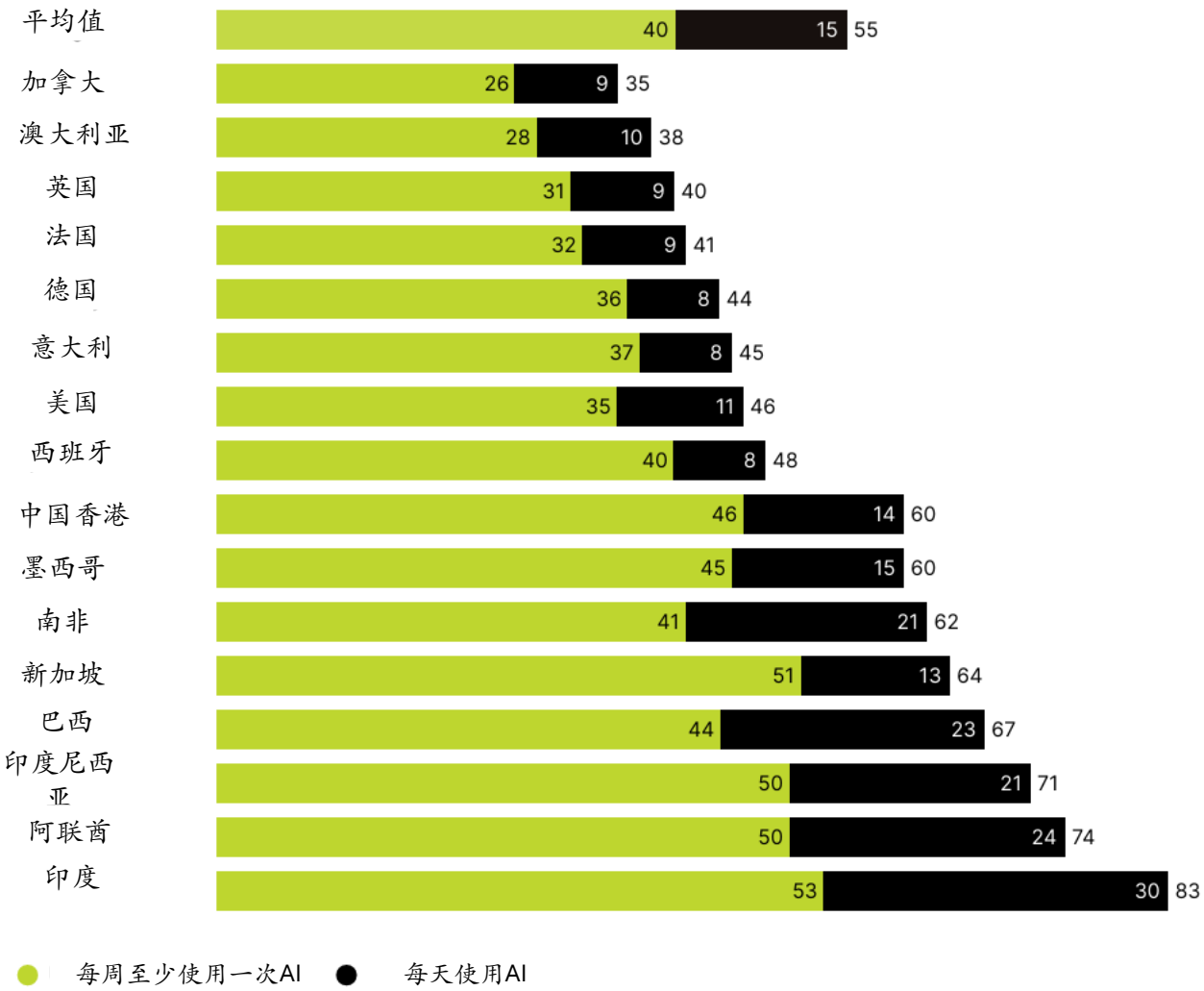


Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=16,033

生成式人工智能在全球的使用率激增

您在当前工作中使用生成式人工智能的频率是多少?

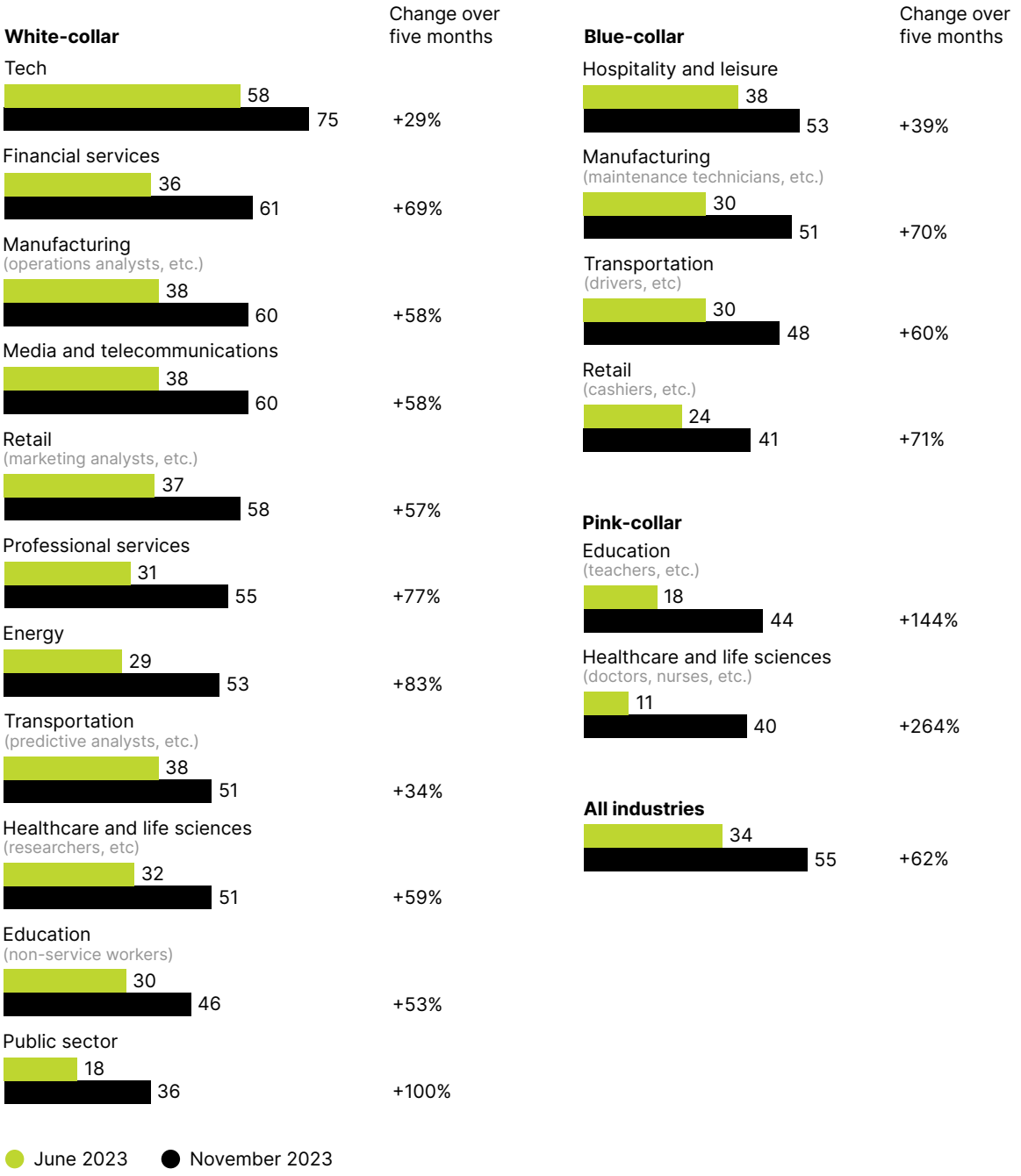
占所有员工的百分比，按国家分类



资料来源：奥维咨询论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，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

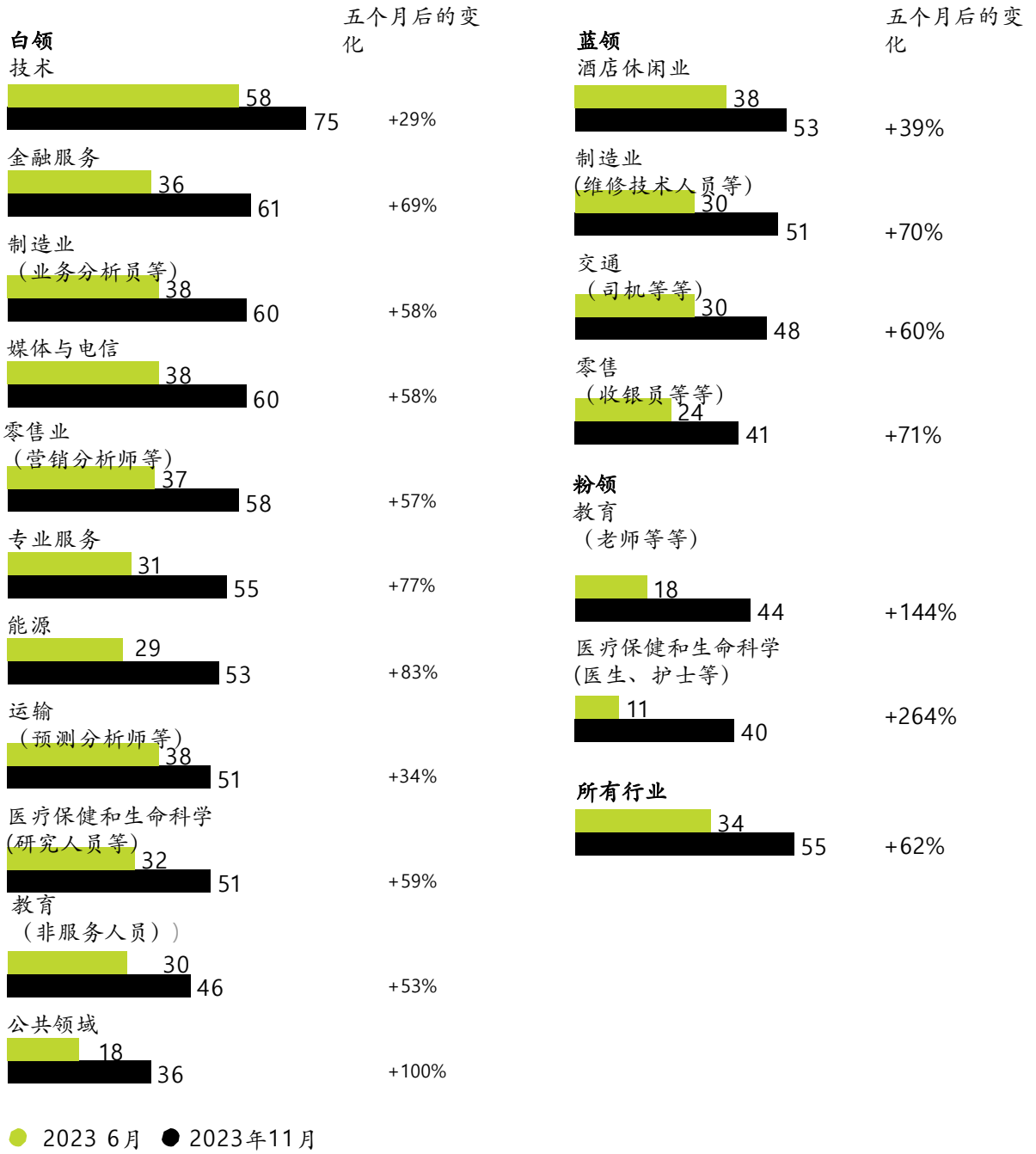


Source: Oliver Wyman Forum Generative AI Survey, May–June 2023 (9 countries, N=6,656), October–November 2023 (16 countries, N=15,227)

在过去五个月中，生成式人工智能在各行各业的使用率均呈爆炸式增长

您在当前工作中使用生成式人工智能的频率是多少?

每周至少使用一次人工智能的员工百分比，按行业和职级分类



资料来源：奥维论坛生成式人工智能调查，2023 年 5 月至 6 月（9 个国家，N=6656），2023 年 10 月至 11 月（16 个国家，N=15227）

> **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%.

> **社会要进步，一切都必须改进。当然，你的工作也会有自动化的一天。这就是进步的代价和好处。**
>
> 网络安全分析师，英国（女性，43 岁）

在所有工种中，这种分布是前所未有的。自动化给生产车间带来了重大变革，机器以其精准无误和不知疲倦的效率取代了蓝领工人。与此同时，白领专业人员对技术却有着不同的体验。他们的工作往往不那么体力化，历来与改变其他行业的机器人革命绝缘。

但是，生成式人工智能正在消除这些界限。随着知识工作的民主化，白领员工的采用率最高：近五分之三的白领员工表示每周都会使用生成式人工智能。它为曾经被认为不受这种破坏影响的任务带来了一定程度的优化和自动化。尖端的人工智能生成工具甚至正在彻底改变绩效管理等 "人类 "任务。

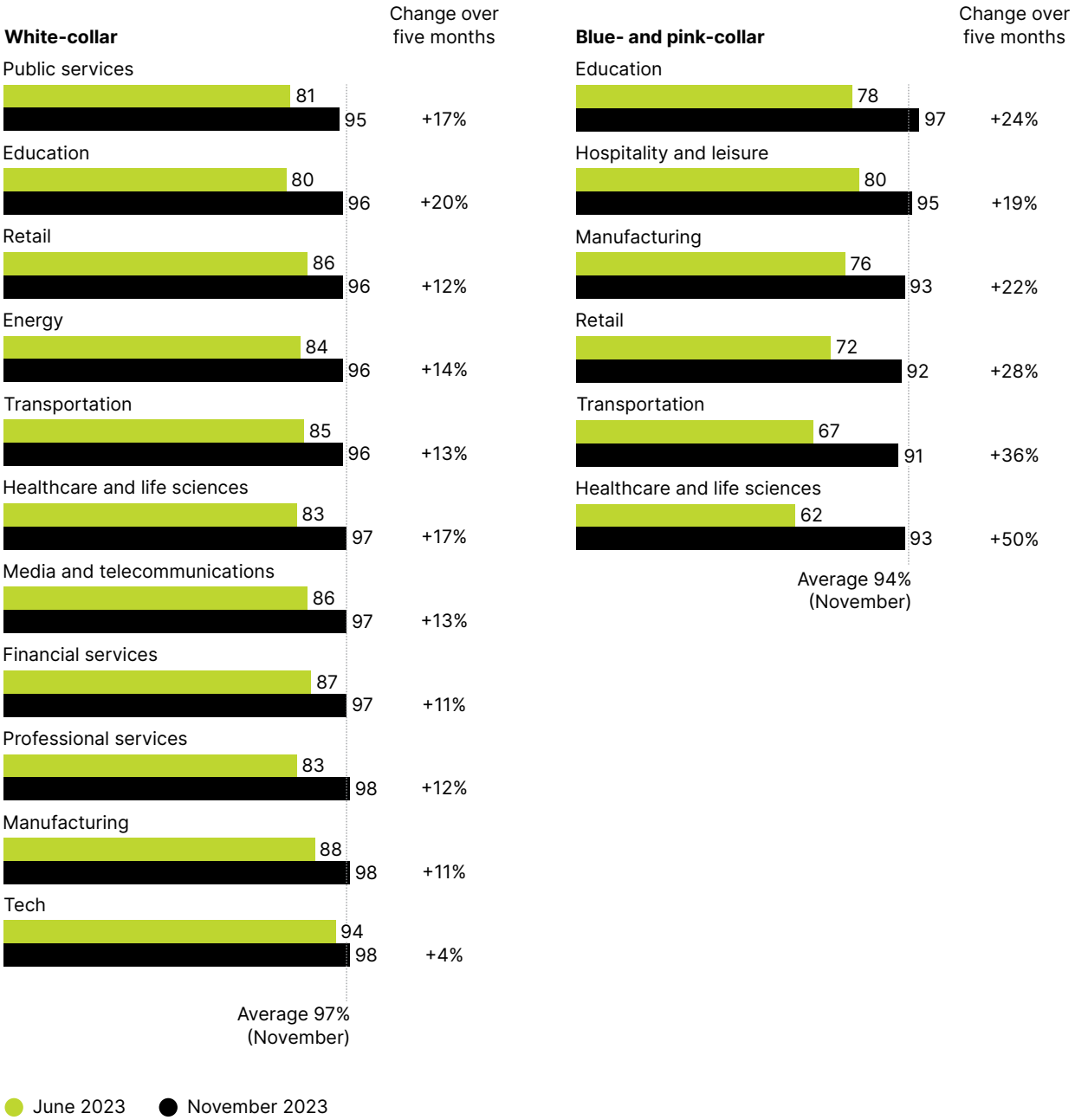
蓝领和粉领工人紧随其后。近一半的人表示每周都会使用生成式人工智能，这打破了人们对人工智能应用滞后的预期。例如，大型超市的员工现在都配备了个性化人工智能助手，帮助自动完成订购产品和撰写报告等繁琐任务。卡车司机正在使用生成式人工智能进行货物与司机的匹配，优化哪种货物装在哪辆卡车上。在制造业，蓝领工人正在使用生成式人工智能扫描冗长的维修手册，并立即提供所需的精确方法，这与逐页查找正确的程序相比是一个巨大的进步。生成式人工智能在员工普遍希望提高生产率的背景下迅速普及。

根据我们 2023 年 11 月的调查数据，在过去几个月里，认为人工智能将对就业产生积极影响的观点出现了广泛而大幅的增长。以前犹豫不决或持怀疑态度的人现在只占少数，大多数人都认识到了生成式人工智能的价值主张。事实上，根据奥纬咨询（Oliver Wyman）与英国金融公司（UK Finance）合作对英国金融机构进行的一项调查，超过 60% 的受访机构认为生成式人工智能有可能显著节约成本并提高运营效率。这不仅仅是为了更快地完成同样的工作，而是为了用更少的时间完成更多的工作，重新定义一天的工作所能实现的潜力。

蓝领和粉领工人也表示最近信心倍增：他们对生成式人工智能有利之处的信心在短短几个月内迅速增加到 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



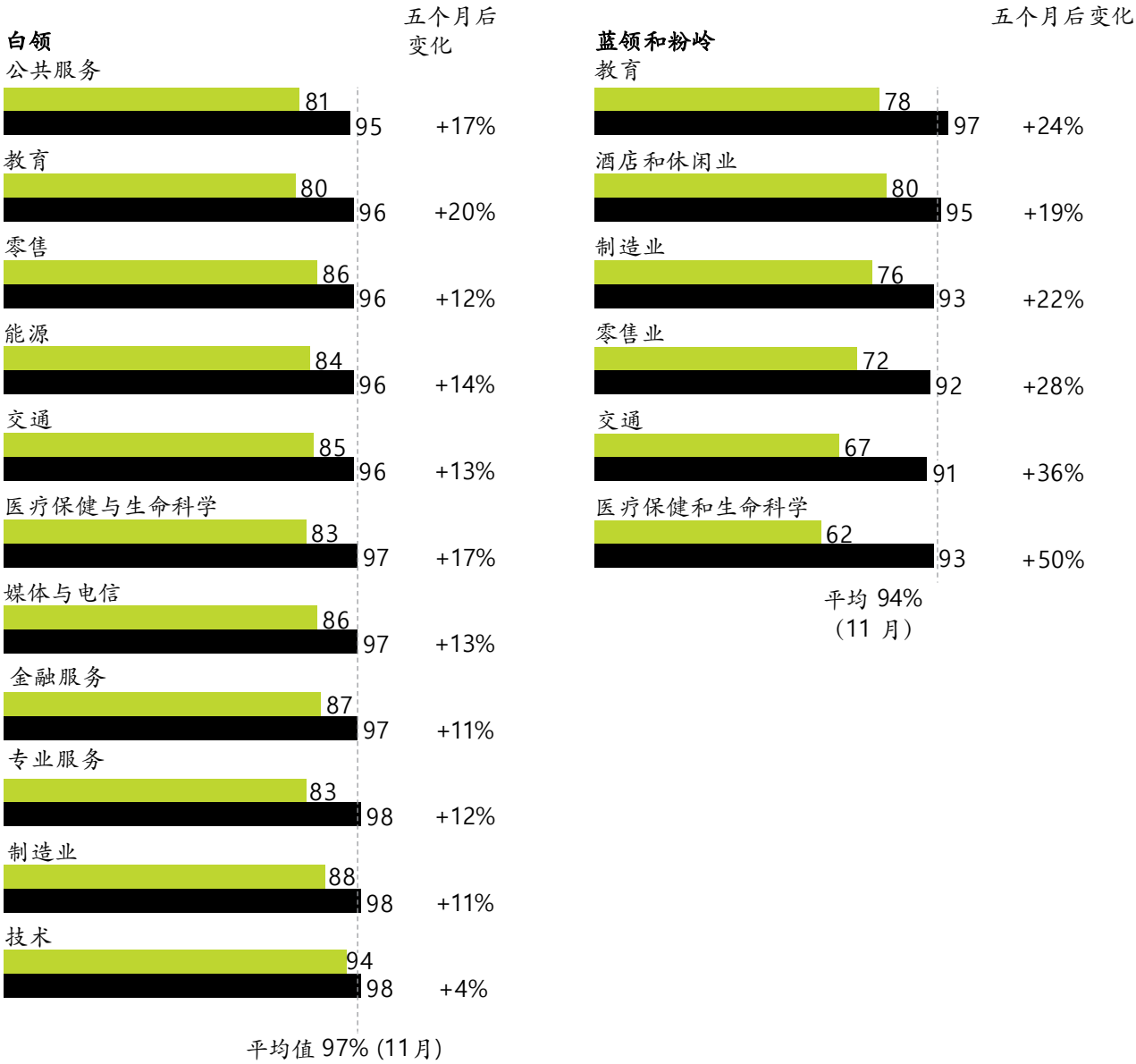
Question: "If you are not using AI in your current job, how do you think you could use AI in your current job? If AI is currently helping you in your job, how could you use it more?" % of respondents who selected generative AI could help them with at least one task

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

各行各业的工人都认同生成式人工智能的前景

认为人工智能能让他们在当前工作中受益的受访者

占所有员工的百分比，按行业分类



问题"如果您在目前的工作中没有使用人工智能，您认为如何在目前的工作中使用人工智能？如果人工智能目前对您的工作有帮助，您可以如何更多地使用它？选择"生成式人工智能至少可以帮助他们完成一项任务"的受访者百分比

来源：奥纬论坛生成式人工智能调查，2023 年 5-6 月（9 个国家，N=6656），2023 年 10-11 月（16 个国家，N=15227）

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

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

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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.

提示：一张为保险公司工作的人拍摄的社论照片。办公楼内部。
/工作 ID: 97d03246-26aa-47de-98ec-92374d92cf8d
/种子: 2472113755

真实案例

生成式人工智能面向知识工作者，希望成为他们的生产力冠军

凭借 AI @ Morgan Stanley Assistant，摩根士丹利成为华尔街首家为员工推出生成式人工智能工具（基于 GPT-4）的大型公司。它能让财务顾问快速访问该银行的知识资本数据库，其中包含约 10 万份研究报告和文件，帮助他们节省处理与市场、建议和内部流程相关的查询所需的时间。联席总裁安迪-萨珀斯坦（Andy Saperstein）在给员工的说明中表达了对其潜力的兴奋之情："我们相信，生成式人工智能将彻底改变客户互动方式，为顾问实践带来新的效率，并最终帮助客户腾出时间做自己最擅长的事情：为客户服务"。

与此同时，Marsh McLennan（奥利弗-惠曼和奥利弗-惠曼论坛的母公司）最近推出了一款名为 LenAI 的内部生成式人工智能工具，这是 OpenAI 基础模型的内部托管版本，在设计时考虑到了监管要求。LenAI 扩展了其底层人工智能模型的功能，增加了一些工具，如搜索互联网、处理大量文件、执行精确计算、从高质量出版物中获取信息等。总之，LenAI 使一些员工的工作效率提高了 20%，许多任务每天可节省多达一小时的工作时间。

Mass adoption ≠ mass productivity

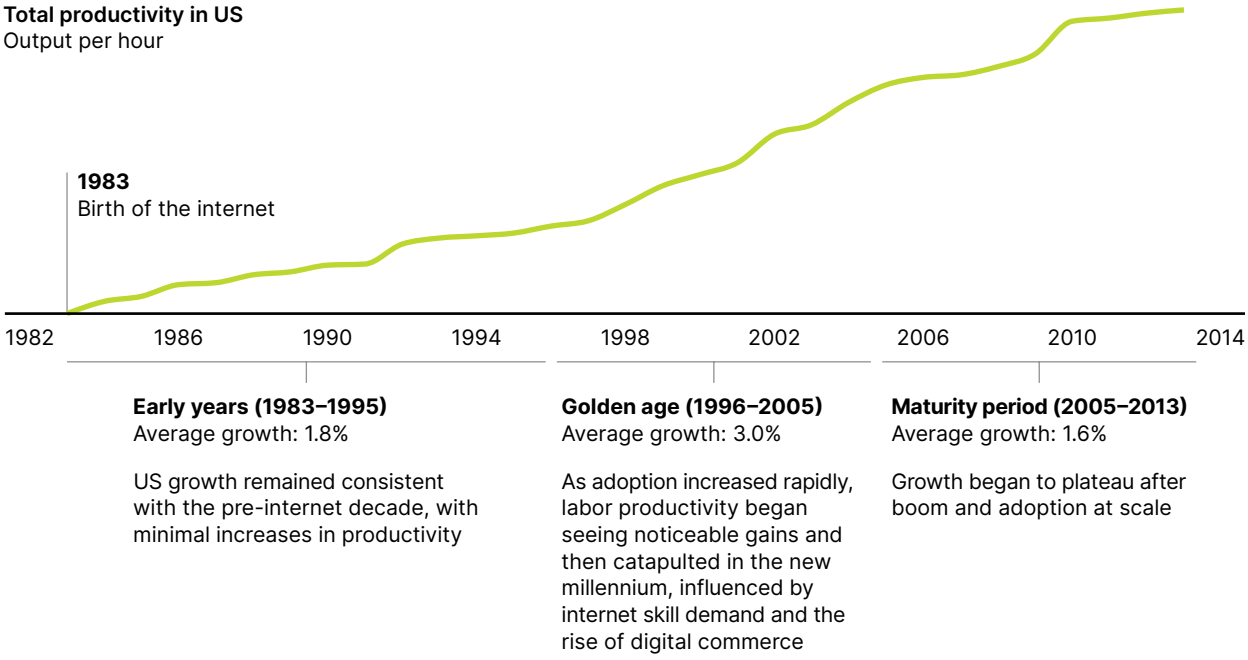
The dramatic uptake in generative AI has been useful for many but hasn't yet resulted in significant productivity gains across the board. Why?

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

大规模采用≠大规模生产

生成式人工智能的大幅普及对很多人来说都很有用，但还没有带来生产力的全面大幅提升。原因何在？

1987 年，经济学家罗伯特-索洛（Robert Solow）发现，蓬勃发展的计算机时代与预期的生产率提高之间存在脱节现象，这一现象现在被称为 "索洛悖论"。企业和政府将资金投入到信息技术基础设施中，但预期的生产力飞跃却明显落空。这一悖论让许多人怀疑，问题是否不在于技术能力，而在于技术的实施方式。

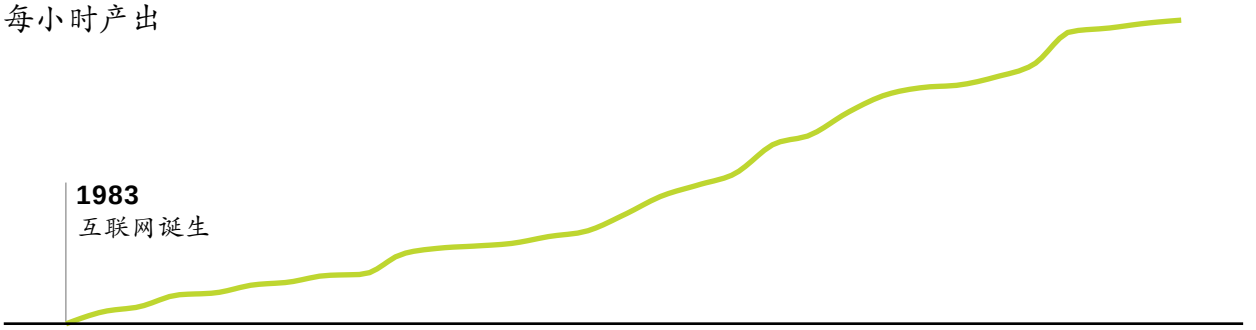
时至今日，问题又回来了：在索洛悖论的重演中，生成式人工智能带来的生产力小驴是否会迟迟无法实现？我们的预估显示，如果不积极管理生成式人工智能的部署，它有可能在短期内成为生产力的天坑，每年可能浪费多达2000亿小时的生产力。

索洛悖论表明，战略投资、系统实施和采用（以及一些耐心）都是利用变革性技术的必要条件。那么，我们现在处于什么阶段？

互联网诞生之初对生产力影响不大，后来成为经济增长的主要驱动力

美国的总生产率

每小时产出



早期阶段 (1983–1995)
平均增长率: 1.8%
美国的经济增长与互联网之前的十年保持一致，生产率增长甚微

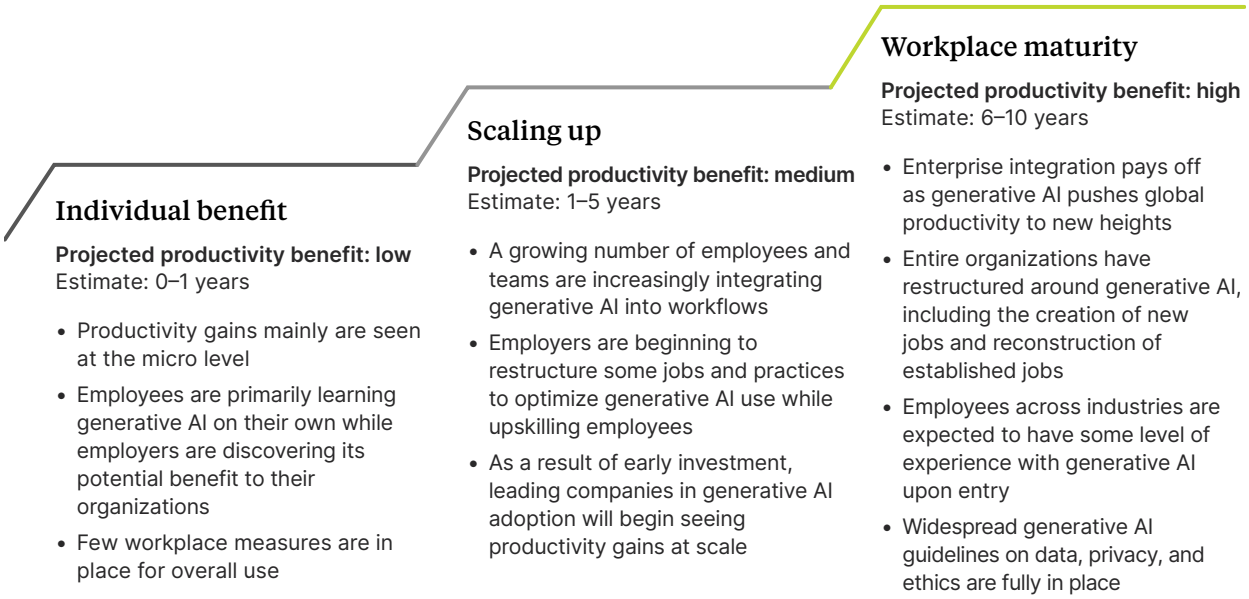
黄金时代（1996-2005 年）
平均增长率：3.0%
随着采用率的迅速提高，劳动生产率开始出现明显的增长，并在新千年受到互联网技能需求和数字商务兴起的影响，出现了飞跃式的增长

成熟期（2005-2013 年）
平均增长率：1.6
在蓬勃发展和大规模采用之后，增长开始趋于平稳

注：生产率以1983年为基准进行标准化
来源：奥纬论坛分析，联邦储备经济数据

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



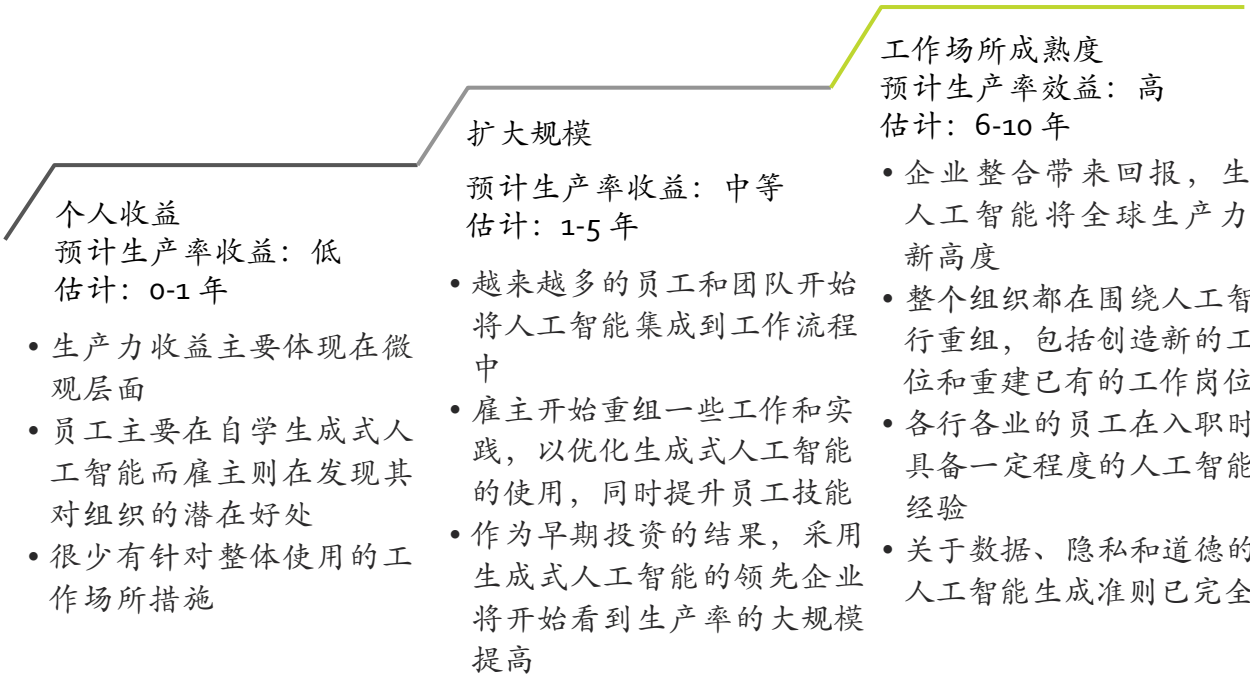
Source: Oliver Wyman Forum analysis

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.

生成式人工智能潜力巨大，但要充分发挥其生产力优势，还需要数年的扩展过程

生成式人工智能影响工作效率的各个阶段



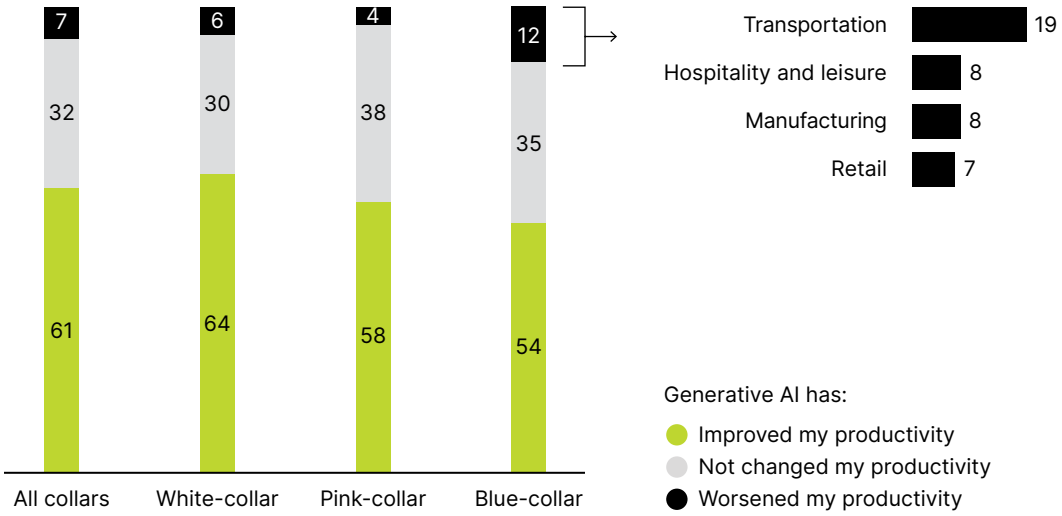
资料来源：奥纬论坛分析

员工仍处于生成式人工智能的早期实验模式，测试如何优化个人的工作方式。自下而上的个人采用主要是在现有的个人流程和活动中进行，而不是重新思考整个团队的活动或组织的工作方式。要真正实现生成式人工智能带来的大规模生产力转型，可能需要在组织层面对工作进行重组。

也许正因为如此，我们已经看到一些员工的期望与体验之间出现了偏差：虽然许多员工注意到工作效率有所提高，但超过三分之一的使用生成式人工智能的员工表示，在采用生成式人工智能后，工作效率没有变化或有所下降。具体来说，10% 以上的蓝领工人认为生产率有所下降，而一些行业的工人，如运输业，由于严重依赖效率和时间管理，生产率下降高达 19%。

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

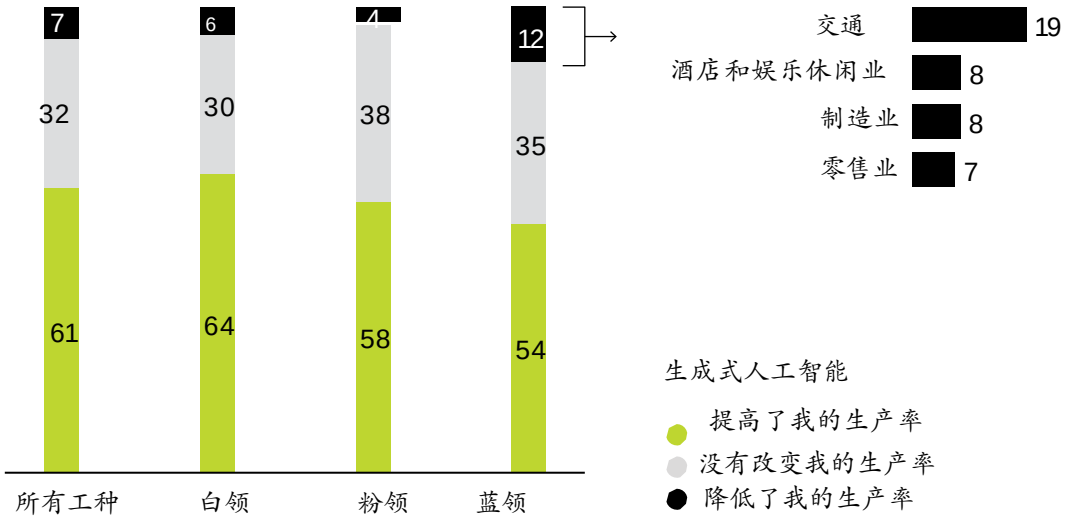
The allure of generative AI's cutting-edge capabilities is undeniable, but the technology itself won't guarantee success — that will come down to the unglamorous, meticulous processes underpinning its development, testing, and implementation.

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.

许多人已经报告说，生成式人工智能提高了生产率，尽管有些人还没有意识到这一点

人工智能对您的工作效率（如完成任务的速度或数量）产生了哪些影响？
使用生成式人工智能的所有员工的百分比，所有工种和行业



资料来源：Oliver Wyman Forum生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=12,160（所有领），N=1,552（蓝领）

这些数字代表了技术演进过程中的成长之痛。根据奥纬咨询（Oliver Wyman）和英国金融公司（UK Finance）的研究，在接受调查的组织中，超过 70% 的人工智能生成用例仍处于概念验证或试点阶段。虽然乐观主义仍然是一种强大的力量，但必须致力于战略性和深思熟虑地实施。

魅力与磨砺

不可否认，生成式人工智能的尖端功能极具诱惑力，但技术本身并不能保证成功--这将取决于其开发、测试和实施过程中那些并不华丽但却一丝不苟的流程。

好消息是，员工们发现的人工智能当前面临的许多挑战都是可以通过改变流程加以克服的。许多人表示，知识不全面是一大障碍，无论是他们自己对技术的整体熟练程度（22%），还是学习如何提示、审查和调整输出（20%），都凸显了各行各业员工需要弥补的差距。

此外，由于协作不完善，生产力有时会受到限制。在蓝领工作中，任务的协调是最重要的，在表示生成式人工智能没有提高生产力的人中，22% 的人指出协作者效率低下。

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.

当前生产率面临的障碍为教育提供了机会
请选择您同意的有关人工智能对您的工作-生活平衡和/或生产率影响的说法

生成式人工智能无法提高生产率的主要原因
所有员工中认为人工智能使其生产率恶化或没有影响其生产率的百分比

学习人工智能会增加压力和花费时间，因为我不精通这项技术	**22%**
人工智能工具提供的输出结果不尽人意，因此我需要花费额外的时间来检查、重新生成输出结果或编辑输出结果	**20%**
遵循公司的人工智能指导方针会延长完成任务的时间	**20%**

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家

那么，我们该如何提高采用效率呢？

企业既要考虑员工个人的需求，也要考虑工作环境将如何变化。

当员工被大规模引入 ChatGPT 和 DALL-E 等生成式人工智能工具时，这些技术非常直观，以至于许多初次使用者都认为他们（或他们的员工）可以自学成才。然而，根据我们的数据，只有不到三分之一的生成式人工智能用户表示采用了最佳使用方法：只有 32% 的使用生成式人工智能的员工表示他们使用了提示工程，只有 26% 的员工表示他们在使用生成式人工智能工具前清理了数据。令人震惊的是，几乎五分之一的用户表示根本没有使用任何最佳实践。

虽然这限制了劳动生产率，但也为有针对性的教育、技能发展以及表彰那些正在提高自身和同行技能的员工提供了机会。营造一种知情热情和应用文化，将人工智能最佳实践嵌入工作流程，对于推动切实的劳动生产率至关重要。

> **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.

> 老实说，我真的不知道如何使用所有人工智能的东西，所以我只是把它当作一个更好的搜索引擎来提问。我听到有人说在工作中使用它，让它做所有这些复杂的事情，但我不知道他们是怎么做到的。
>
> 项目经理，美国（男，33 岁）

第二个并行步骤与工作解剖学有关。领导者往往关注生成式人工智能和其他技术如何能够减少员工人数。结果，采用生成式人工智能的努力可能会因工作设计构思不当而触礁，从而可能导致索洛悖论的重演。

企业在采用生成式人工智能时，应优先考虑工作而不是技术。企业应首先了解工作的性质，然后确定生成式人工智能可以提高效率的具体任务，并根据生成式人工智能推动成果的最大机会，深思熟虑地重新设计工作流程。例如，生成式人工智能可以帮助替代高度重复、基于规则的工作，为提高人类的创造力、同理心和批判性思维创造空间。

以工作为导向可以使组织实现显著的经济效益和其他收益，因为采用生成式人工智能的最佳解决方案通常只能在任务和技能层面上看到。通过将工作设计作为组织的核心能力，并不断重新设计工作以实现人才和技术的最佳组合，企业及其员工队伍可以实现生成式人工智能的全部价值。

/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.

/提示：洛杉矶作家罢工的编辑图片。

/工作ID：bfb1ee27-e864-4e5d-9313-faa65b433b76

/种子：1570957853

注：在计算机科学和随机数生成领域，图片的种子（Seed）是一个起始值，用于生成随机数据或信息的序列。在图像处理中，种子经常用于随机化算法，以在不同的情境中生成不同的图像效果。

真实世界的案例

生成式人工智能引发罢工

2023 年，170,000 多名编剧和演员举行罢工，以保护他们的工作不受生成式人工智能的影响。生成式人工智能是好莱坞编剧和演员历史性联合罢工的推动力，导致 45000 个工作岗位和约 50 亿美元收入的损失。

除了在流媒体剩余价值方面持续存在的劳资纠纷外，这两个团体还罢工反对制片厂将人工智能生成技术用于写作和数字娱乐，认为这是制片厂削弱薪酬的又一工具。

由美国编剧工会领导的编剧罢工以对生成式人工智能使用的最严格限制而告终，限制其在编剧材料上进行训练、用于素材、创作或修改剧本。关于演员的数字复制品，达成了一项协议，即制片公司在部署此类技术之前必须征得演员的同意。

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

催化剂/

重塑劳动力结构

重新构想新的工作金字塔

早在伊丽莎白时代和工业革命时期，人们就预料到并担心机器会影响他们的工作。1850 年，纽约市的一群裁缝威胁要罢工，除非他们的雇主停止使用新型缝纫机。报纸上的文章哀叹 "可怜的姑娘们 "的命运，她们再也不能靠缝制储盐的袋子谋生了，并建议裁缝们专注于更复杂的工作，机器缝制衣服永远无法触及她们的工作。当我们回顾这段往事时，我们可能会对这些具体的建议嗤之以鼻，但大致的情况却与今天工人们所面临的情况如出一辙：我们可能不知道劳动力的哪些部分将被颠覆，也不知道如何被颠覆，但我们知道即将发生转变。我们该如何预测或准备呢？

生成式人工智能可以改变工作的基本结构。生成式人工智能的影响将波及所有工作级别，重构工作金字塔，重组技能等级。专家们普遍认为，初级员工可能会最先感受到生成式人工智能的影响。但现在的初级员工认为，他们的工作只有三分之一可以实现自动化，比高级员工的看法低 25%。

生成式人工智能的数字对劳动力结构的影响

1.7万亿

到 2027 年，全球雇主将花费 1.7 万亿 美元对员工进行生成式人工智能培训

60%

到 2027 年，60% 的员工需要重新学习或提高人工智能技能

8500万

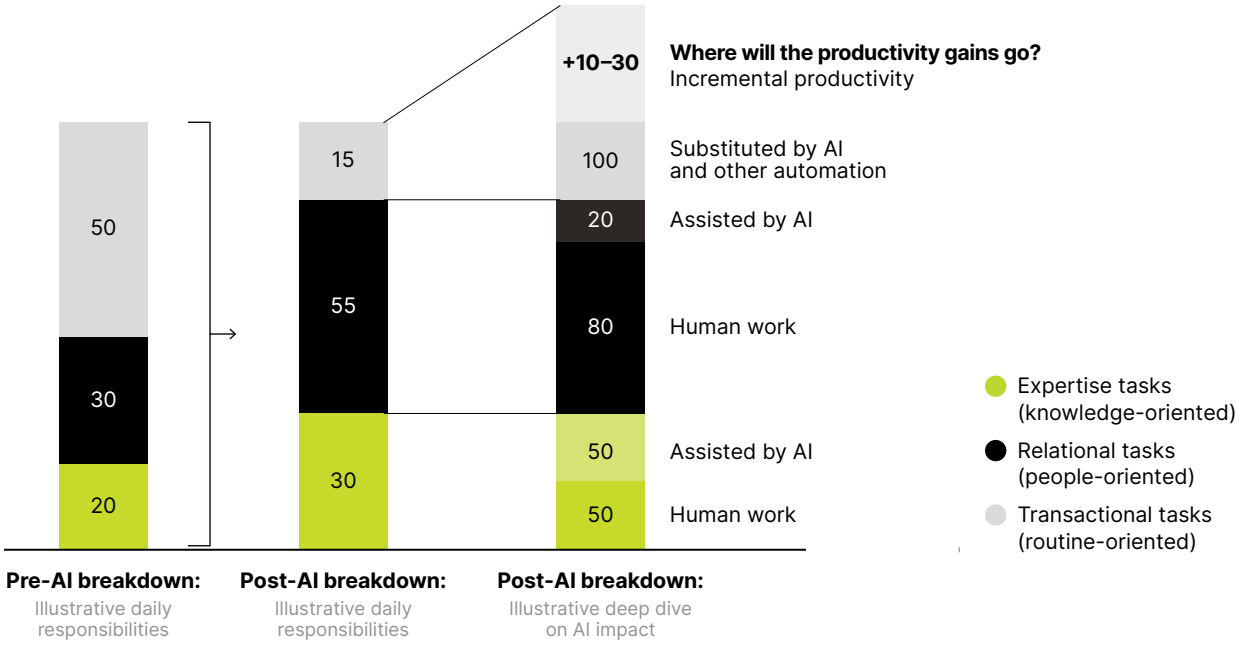
未来几年全球将有 8500 万个工作岗位因人工智能而被取代

资料来源：奥纬咨询论坛分析，世界经济论坛

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



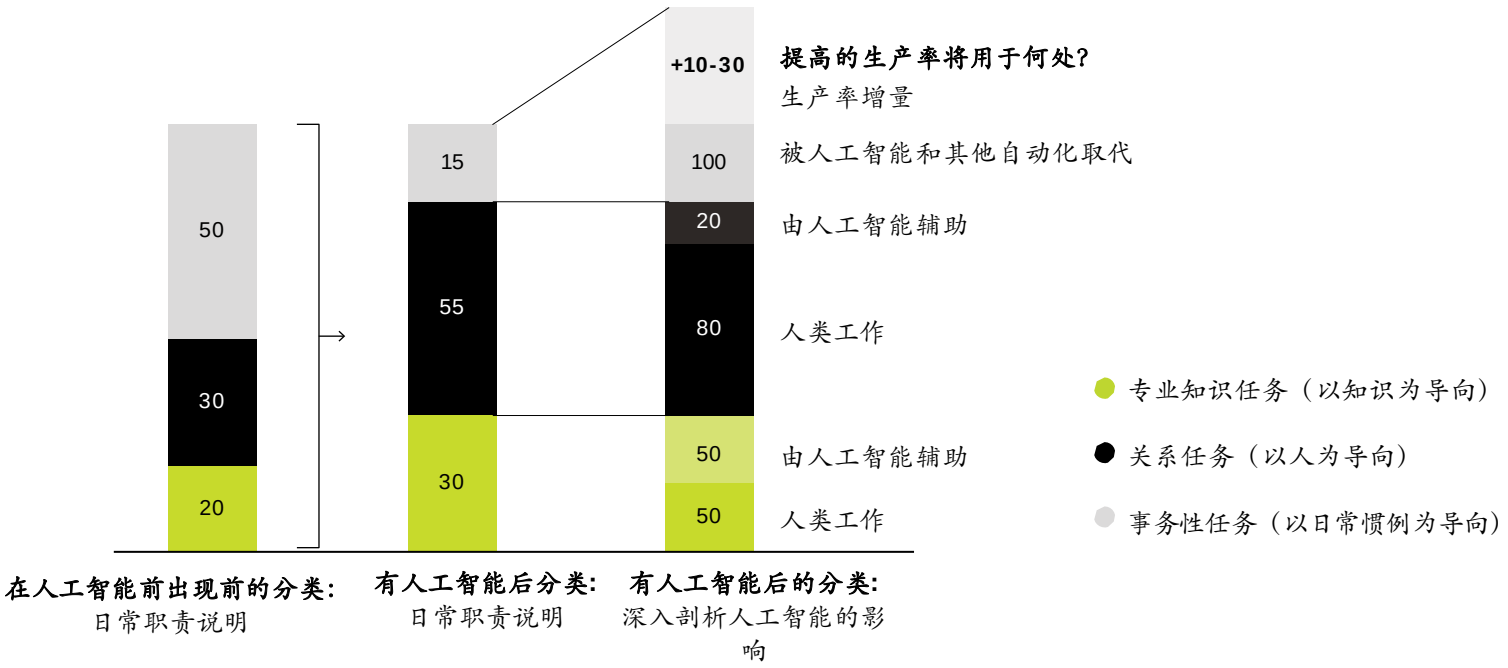
Source: OpenAI, OpenResearch, the University of Pennsylvania, Brookings Research, Goldman Sachs Research, Jesuthasan and Boudreau

一些专家在研究生成式人工智能和自动化将如何影响员工当前的工作时，将工作分为三种类型：事务性工作、关系性工作和与专业知识相关的工作。我们的大部分事务性工作将被机器人流程自动化、机器学习和生成式人工智能所取代，而需要深厚专业知识或人类协作的工作将越来越多地被增强。

拉文-杰苏塔桑（Ravin Jesuthasan）和约翰-布德罗（John Boudreau）在《没有工作的工作》（Work Without Jobs）一书中指出，这些变化的结合可能会产生10-30%的增量生产率收益。领导者和政府面临的问题是，我们将如何利用这些收益？我们是会像过去60年中的大部分时间一样，将这些收益用于增加公司的净利润，还是会与劳动力和社区分享这些收益，创造一种新的管理和劳动契约？

人工智能和自动化将改变工人的核心任务，提高生产力，并影响当今80%的工作岗位

核心任务分类说明

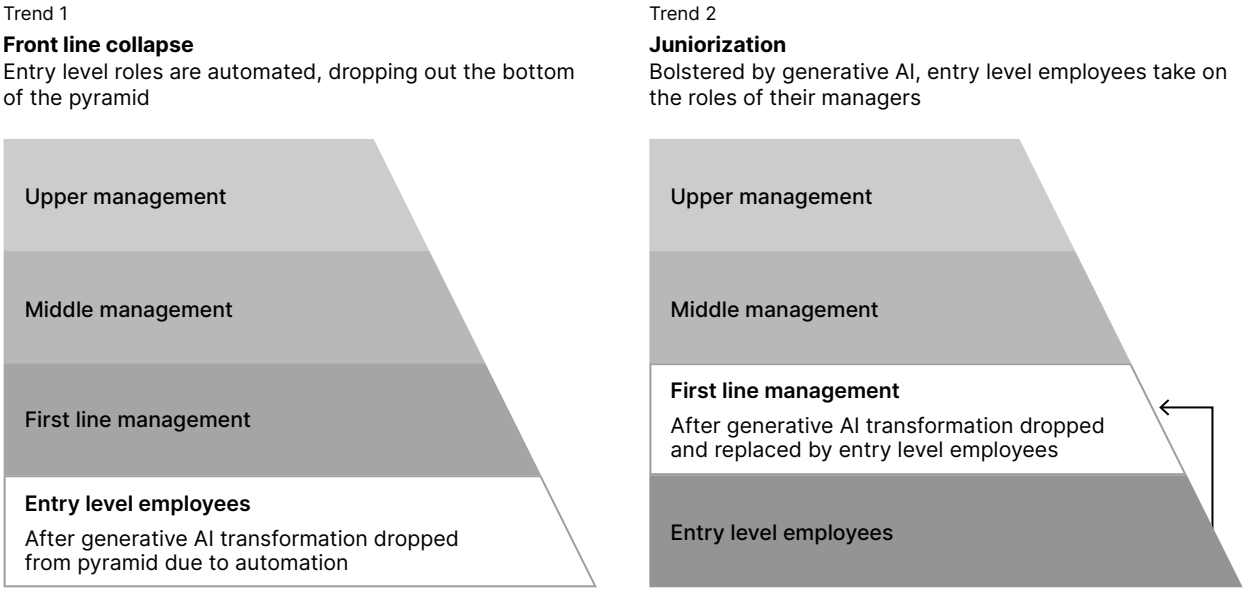


资料来源：OpenAI、OpenResearch、宾夕法尼亚大学、布鲁金斯研究、高盛研究、Jesuthasan 和 Boudreau

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.

劳动力重组趋势正在发挥作用

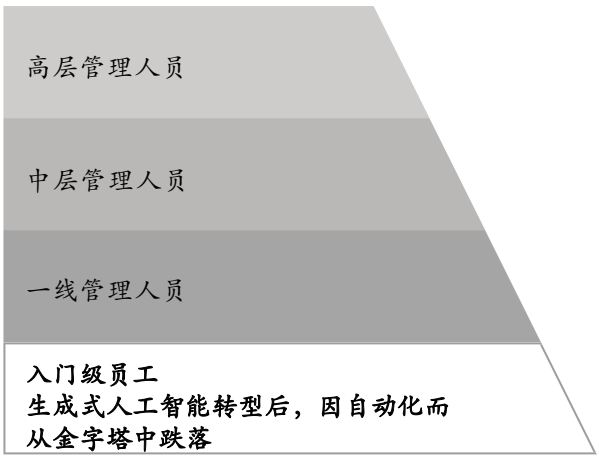
哪些工种最有可能被人工智能取代?

生成式人工智能可能会重塑工作金字塔，但并非对所有工人都一视同仁...

趋势1

前线崩溃

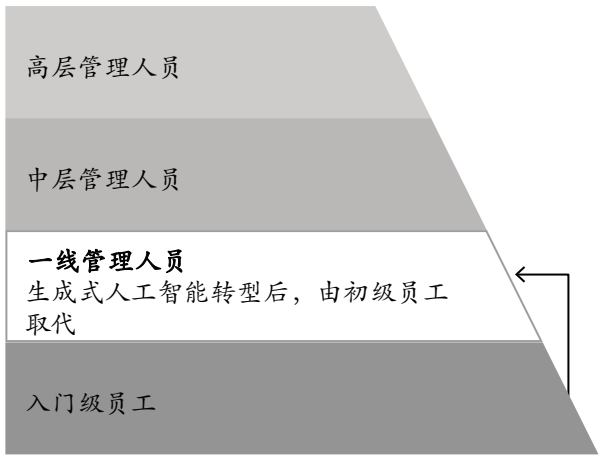
入门级职位实现自动化，金字塔底层的职位被淘汰



趋势 2

初级化

在生成式人工智能的支持下，入门级员工承担起经理的角色



来源：奥纬论坛分析

初级和一线员工影响

让我们假设一家名为 AirConnect 的全球航空公司，它以致力于创新和提供优质客户服务而闻名。为了应对不断变化的劳动力形势，这家航空公司希望实施生成式人工智能解决方案。它的计划是什么？用生成式人工智能聊天机器人取代大部分客户服务代表，自主处理客户咨询并协助预订。

AirConnect 公司的入门级客服人员可能还没有意识到即将发生的变化。AirConnect 的工程师们正在潜心开发一个生成式人工智能聊天机器人，它所具备的技能很快就会超越他们自己。虽然生成式人工智能的蜕变正在进行中，但当务之急是向员工传达这一变革愿景。这一挑战并非我们虚构的航空公司所独有，而是现实世界中的雇主在生成式人工智能重塑劳动力时将面临的现实可能性。

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

初级员工有可能被即将到来的人工智能自动化生成风暴打得措手不及

您认为您的工作中有多少可以利用人工智能实现自动化?

职位级别	员工认为本职工作可以自动化的百分比	专家对自动化的看法
高层管理人员 **高级管理层--白领** (例如，企业主、总经理、部门主管、首席执行官、首席财务官、首席运营官)	52	低
企业领导 - 蓝领 (例如，店主/店员、区域经理、加盟商)	53	低
高层管理人员 - 粉领 (例如，部门主管/主席、总监、院长、主任、高级行政人员)	42	低
中层管理人员 **中层管理人员--白领** (例如，项目负责人、分公司经理、团队负责人)	43	中等
一线经理 - 蓝领 (例如，领班、店长、班长)	46	中等
专业人员 - 粉领 (例如，心理学家、医生、治疗师、教授、执业护士、律师)	31	低
一线管理人员 **一线管理人员 - 白领** （例如，主管、初级经理）	38	中等
专业工人 - 蓝领 (例如，技术员、电工、机械师、调度员)	41	中等
中级专业人员 - 粉领 (例如，护士、助理医师、幼儿教育人员、学科教师、人力资源人员)	33	中等
初级雇员 **非管理人员雇员--白领** （例如，入门级、分析员、助理人员）	35	高
蓝领雇员 (例如，主持人、服务员、建筑工人、收银员)	36	高
辅助和行政人员--粉领 (例如，接待员、医疗助理、维修人员、文员、家政服务员)	38	高

注：来自皮尤研究中心、高盛经济研究和 Aquant 等商业和生成式人工智能专家的观点汇总

资料来源：奥纬咨询论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=15227

Collapse of the middle... manager

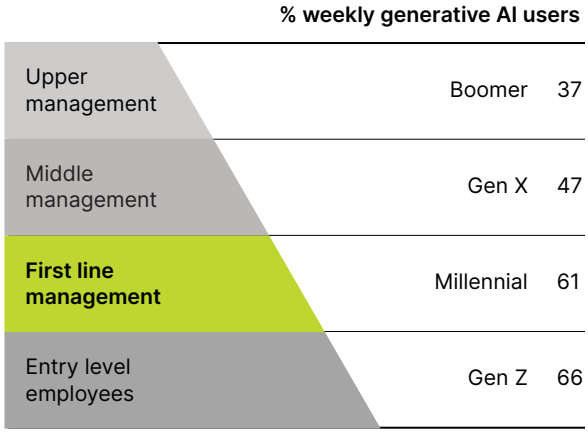
As generative AI replaces some front-line roles, it will disrupt the pipeline of manager roles, akin to the "collapse of the middle" in the job pyramid. We can likely expect generative AI and AI more broadly to accelerate the timeline for climbing the career ladder as tasks typically given to entry-level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

中层……经理的崩溃

随着生成式人工智能取代一些一线岗位，它将扰乱经理岗位的渠道，类似于工作金字塔中的“中层坍塌”。

我们可以预见，随着人工智能简化了通常交给入门级员工的任务，生成式人工智能和更广泛的人工智能将加速职业阶梯的攀升。

在 AirConnect，生成式人工智能驱动的客服人员可以处理预订航班、提供航班信息和解决日常问题等琐碎任务。这种转变可以让一些曾经承担这些日常任务的初级客服人员晋升。我们的数据显示，现在每三名 Z 世代员工中就有两人表示每周都会使用生成式人工智能，比一代人多出 78%。

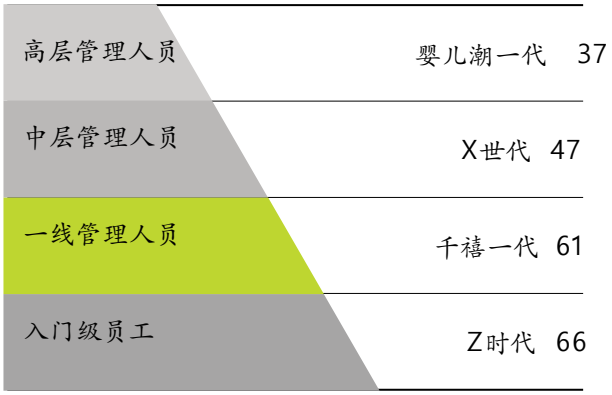
在 AirConnect，这意味着初级员工可以担任“客户体验经理”这一新角色，负责以人工智能功能为基础的任务，如解决复杂的客户要求、维护 VIP 乘客，以及为任何非常规的旅行挑战制定解决方案。从本质上讲，他们将承担起过去只有上司才能承担的职责。

有了生成式人工智能，入门级员工可以担任更高级的职务

示意图

年轻员工更有可能在工作中使用生成式人工智能，为担任一线管理职务铺平道路

每周生成式人工智能用户百分比



注：管理层次与世代的图形映射仅供参考
问题“您在当前工作中使用人工智能的频率是多少？”
资料来源：奥纬论坛新一代人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

增强初级员工的能力可能会以牺牲中层管理者为代价，而中层管理者传统上是高层管理者的候选人。随着生成式人工智能的兴起，AirConnect 和其他现实世界中的组织可能会发现自己面临着一个意想不到的难题：如何为高层领导充分培养员工队伍。

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.

未来工作展望 2

增强工人超越自我的能力

当投资银行家莎拉在纽约繁华的市中心做着美梦时，德国曼海姆的化工厂操作员卡尔却在登录化工厂先进的生成式人工智能系统 ForumAI。

系统一启动，他的老板就弹出了一条信息，ForumAI 用老板的声音读出了这条信息：工厂正计划在生产线上首次使用具有划时代意义的新化学品。卡尔应该做好准备。当卡尔获取这条信息后，ForumAI 提前预知了他的下一个问题，并向他展示了新化学成分的三维模型，邀请卡尔沉浸在规格说明中。卡尔被深深吸引，他指示 ForumAI 构想出无数生产场景，ForumAI 立即在屏幕上显示出一系列生动的图表，每张图表都直观地描述了生产率和库存水平的变化。过去，引进一种新型化学品需要众多受过高等教育的工程师通力合作。现在，有了 ForumAI 作为盟友，卡尔不需要高级工程学位，就能独自掌舵，自信地驾驭这些错综复杂的场景。

当卡尔完成第一项任务时，ForumAI 根据对维护历史的分析，闪烁出深红色的警告，提示冷却水箱阀门即将发生故障。费力地对冷却水箱的每个部件进行例行人工检查的日子一去不复返了。取而代之的是，卡尔只需命令 ForumAI 启动阀门的预防性维护订单。时间节省下来后，Karl 开始了更具创造性和战略性的工作：揭开阀门故障背后的谜团。在 Karl 的要求下，ForumAI 打开了分析界面，投射出令人着迷的冷却水箱三维可视化图像。在身临其境的三维投影中，卡尔的批判性思维能力被点燃，他很快就发现了阀门是如何在持续高压下挣扎的。卡尔对这一发现非常满意，他安排第二天与老板会面，讨论更换不同阀门的问题。

卡尔在回家的路上回想着他与ForumAI的深度合作。这项技术将他从琐碎的日常工作中解放出来，使他能够专注于更有吸引力的任务，而这些任务曾经是他的上司的工作领域。ForumAI提升了卡尔的工作和技能水平，使他能够在工作中发挥更大的影响力。

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).

伟大的技能再培训--雇主和雇员面临的挑战

进入再培训革命

根据 IBM 商业价值研究院的报告，高管们认为在未来五年内，由于人工智能的产生，40% 的员工将需要重新学习或提高技能，而几乎所有接受调查的员工（98%）都认为他们将需要重新学习或提高技能。这些令人警醒的数字表明，全球将有 14 亿到 30 多亿人需要学习新技能。《哈佛商业评论》指出，不仅对新技能的需求在不断变化，而且任何新学技能的预期生命周期现在都不到五年。这给雇主、雇员和公共政策官员带来了巨大的挑战，同时也需要重新定义未来劳动力的工作结构。

然而，这种影响远非清晰和统一。一些员工将探索未知领域，接受尚未存在的新角色和工作流程，管理生成式人工智能产生的产出，并深入研究工作中典型的"人"的方面。其他员工则将学习生成式人工智能技能，从而提高工作效率，将曾经艰巨重复的任务自动化。

尽管企业和员工都认为技术和软技能很重要，但他们对这些技能的优先级存在分歧。例如，接受调查的员工将人工智能和大数据列为再技能培训的首要任务，其中近四分之三的人希望获得更多相关的学习机会。然而，根据世界经济论坛的数据，雇主将人工智能和大数据排在软技能（如创造性思维、领导力和社会影响力）之后，仅有 41% 的雇主将这些关键技能列为优先事项。

员工最注重人工智能和大数据方面的培训，而雇主则强调分析性思维

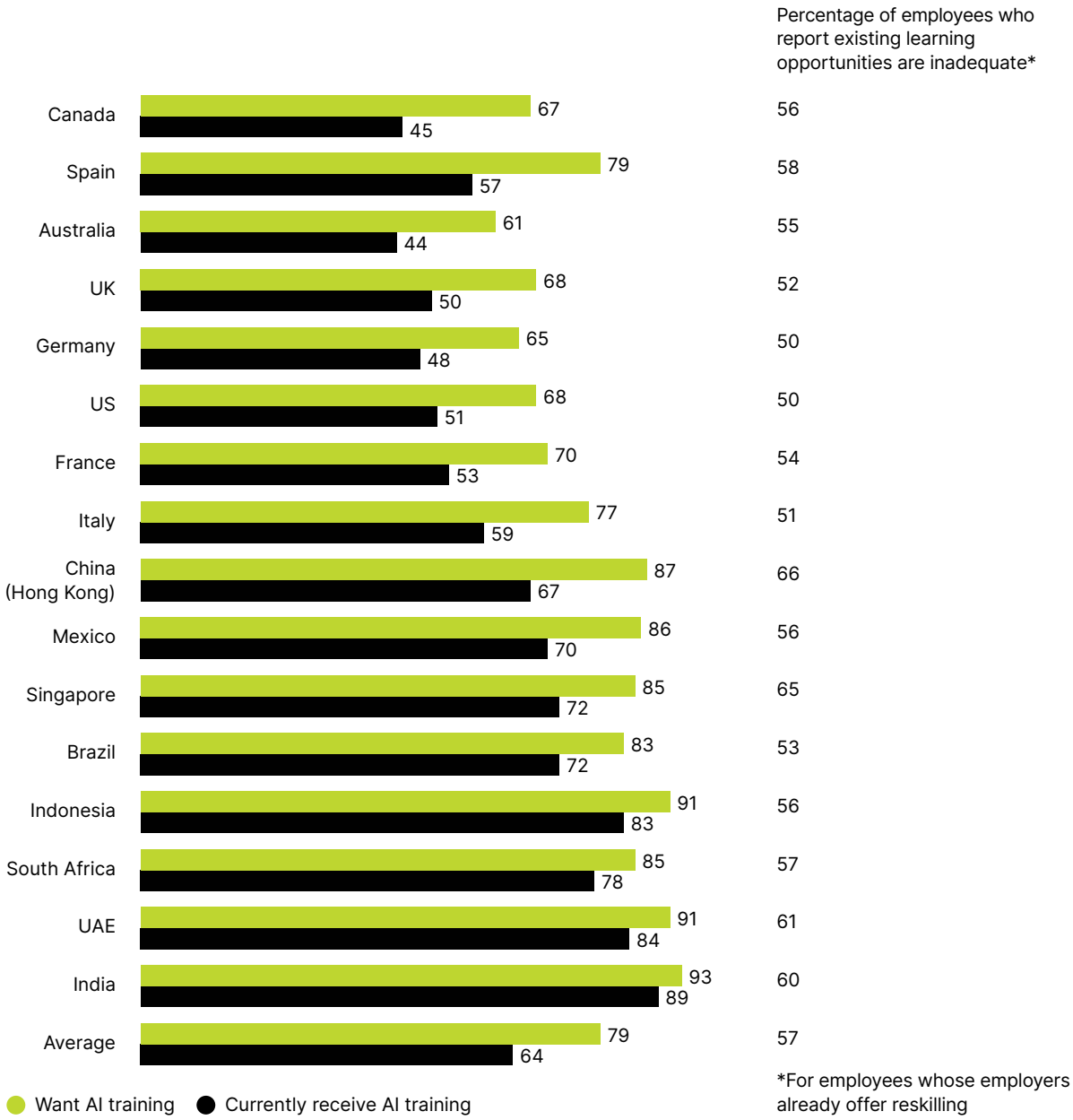
排名	员工再培训优先事项	雇主再培训的优先事项
1	**人工智能和大数据**	分析性思维
2	创造性思维	创造性思维
3	分析性思维	领导力和社会影响力
4	领导力和社会影响力	**人工智能和大数据**
5	技术素养	好奇心和终身学习

问题“您认为在未来五年内，以下哪些技能对您的培训/再培训工作很重要？”

资料来源：奥纬咨询论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=15227。与各组织未来五年的培训和技能提升优先事项相比（世界经济论坛）。

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



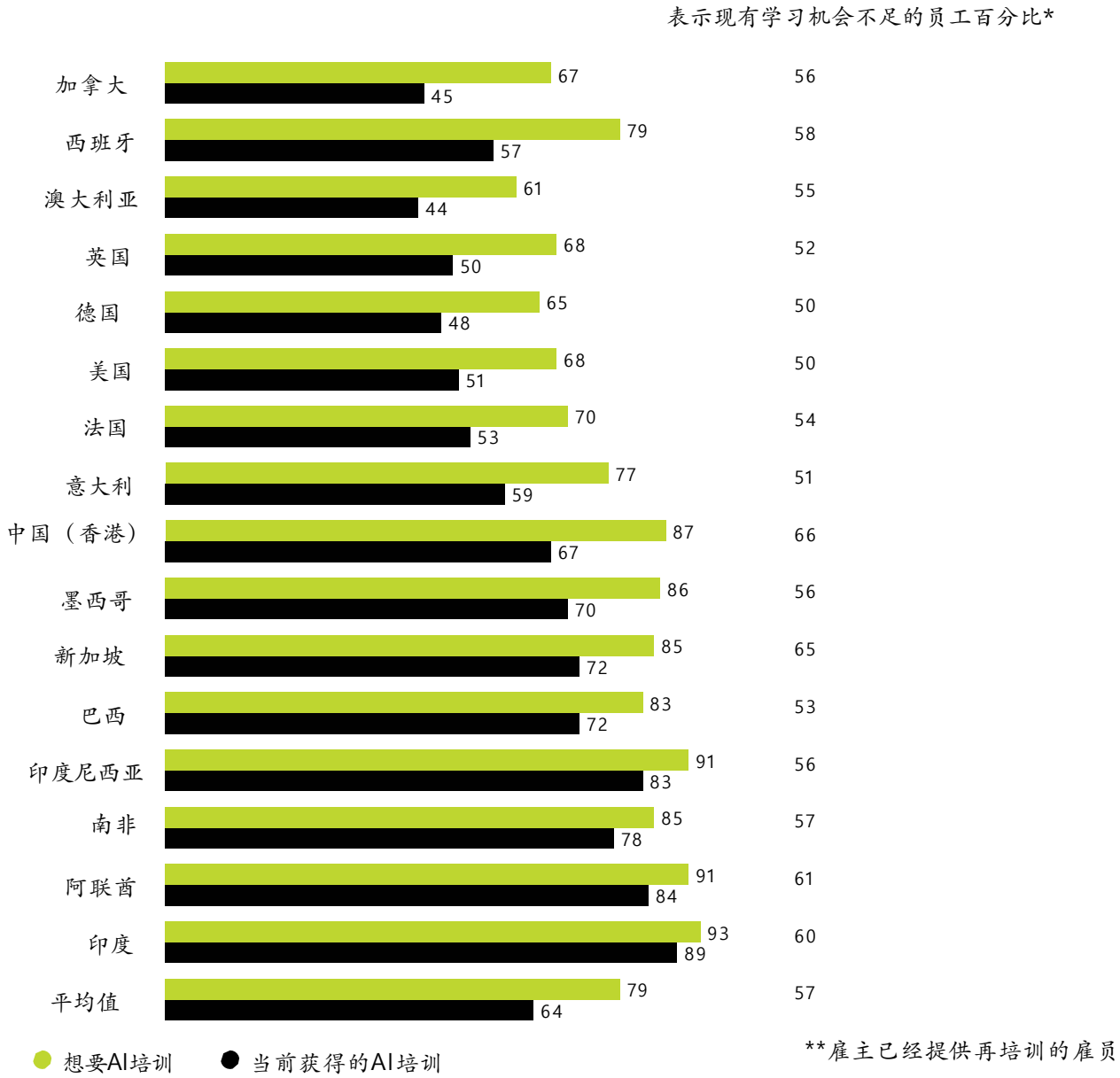
Question: "What types of AI training does your employer currently provide, and what types of training do you want your employer to provide?", "I am receiving insufficient AI training/education from my employer — percentage agree"

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

雇主在人工智能生成式学习机会的数量和质量方面都落后了

雇主如何满足员工对人工智能学习机会的需求?

员工对培训的需求与雇主目前提供的学习机会之间的差距百分比（由员工报告），按国家分类



问题“您的雇主目前提供哪些类型的人工智能培训，您希望雇主提供哪些类型的培训？”，“我从雇主那里接受的人工智能培训/教育不足--同意百分比”

资料来源：奥纬咨询论坛新一代人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033 和 N=10,242

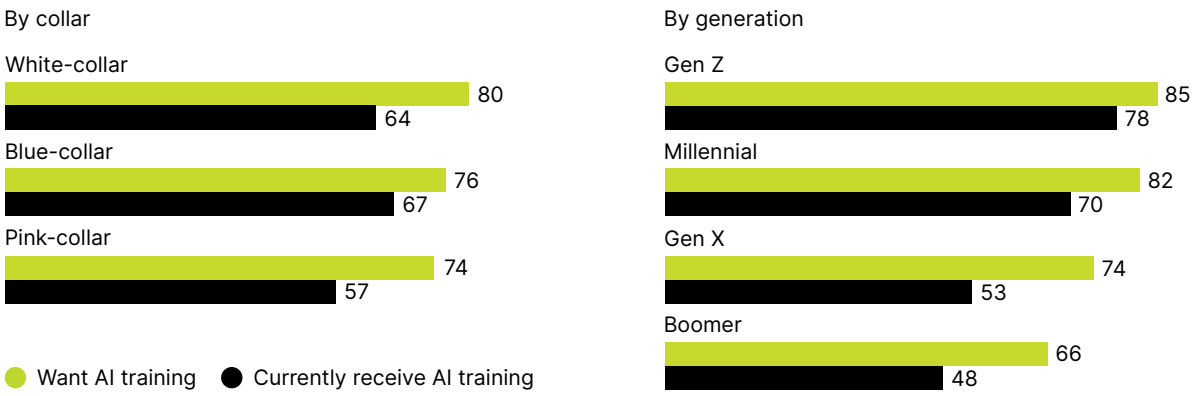
This mismatch between what employees want and how much training their employers think they need is significant. Almost three out of five employees who receive reskilling opportunities report that they are inadequate, underscoring the growing discontent. In India, where the gap between employee demand 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?"

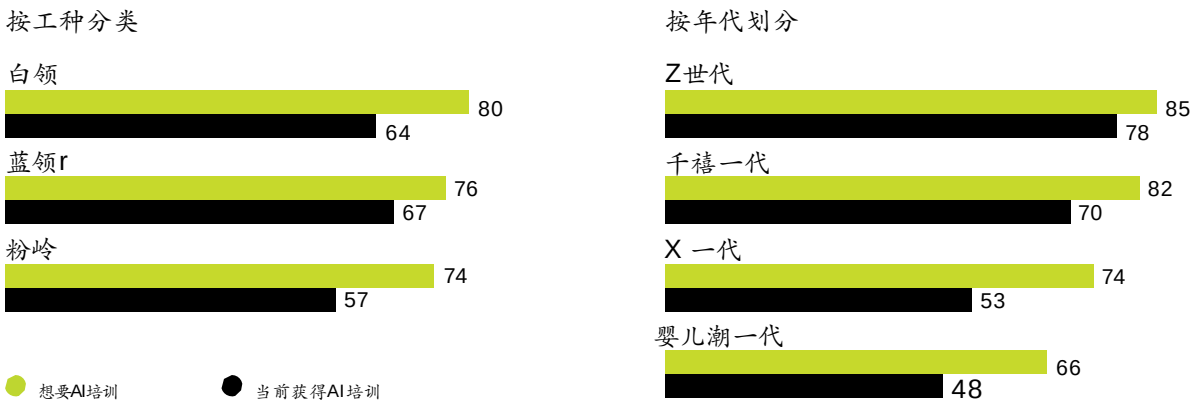
Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=15,277 (by collar), N=16,033 (by generation)

员工的需求与雇主认为他们需要的培训数量之间的不匹配非常严重。几乎五分之三获得技能继续培训机会的员工表示培训机会不足，这凸显了日益增长的不满情绪。在印度，员工对创造性人工智能再培训的需求与雇主提供的培训之间的差距最小，但60%的受访员工表示现有的学习机会仍然不足。

从知识工作者到技术工人都存在这种不匹配现象，其中粉领工人的差距最大。这些受访者希望获得生成式人工智能方面的再培训机会的可能性比他们所说的雇主愿意提供的机会高出 30%。这种差距还扩大到了白领和蓝领员工，以及 X一代和婴儿潮一代员工。

作为数字原住民的Z 世代员工和许多千禧一代员工都在积极主动地寻找机会，以增强他们的生成式人工智能专业知识。而每三名婴儿潮一代员工中就有两人表示他们正在寻求人工智能再培训的机会，这打破了年长员工可能不愿意接受新技术的说法，但他们也表示，由于缺乏雇主资源，他们最有可能无法获得生成式人工智能学习的机会。对每个工人来说，接触和学习以及全面提高技能和再培训的途径都不尽相同，这突出表明，各行各业的雇主都迫切需要重新确定学习和发展以及更广泛的再培训日程的优先次序，并对其进行投资。

所有年龄段和工种的员工都需要更多的生成式人工智能学习机会
希望接受人工智能培训与目前正在接受人工智能培训的员工比例



问题“您的雇主目前提供哪些类型的人工智能培训，您希望雇主提供哪些类型的培训？”

资料来源：奥纬咨询 论坛新一代人工智能调查，2023 年 10 月至 11 月，16 个国家，N=15277（按领），N=16033（按代）。

> **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.

> 因为我刚开始使用人工智能，我甚至不知道所有的实际应用。因此，我认为培训将是重中之重。人工智能在我这样的角色和我们这样的公司中有哪些实际应用？我们还有哪些工作没有做？
>
> 顾问，美国（女性，56 岁）

今天为明天的劳动力做好准备

如果各种估计正确的话，未来十年将有数十亿工人需要提高技能，数百万人可能需要完全重新掌握技能。我们该如何应对这一复杂的商业和社会挑战，不仅让那些掌握新技能的人，而且让那些转行的人能够顺利实现劳动力转型？

前面我们介绍了工作设计作为组织核心能力的概念，以确保生成式人工智能与人类工作的最佳结合。要驾驭未来的变革格局，在具备这种能力的同时，还应在人才开发和部署方面进行投资，这就要求企业采取战略性的综合方法来实施技能再培训和技能提升计划。

企业应认识到“一刀切”的做法并不适合所有人，因此应针对每个角色策划特定的学习资源，根据个人需求量身定制学习体验。同时，员工可以通过直接适用的培训（如实践研讨会），提高与生成式人工智能一起工作的熟练程度和信心。

组织领导者应支持再培训计划，确保员工认识到其重要性。与此同时，每位员工都应有权在再培训过程中成为自己的领导者，包括重新关注使用生成式人工智能工具所需的硬技能以及沟通和批判性思维等必要的软技能。与员工合作决定培训事宜，可以鼓励员工自主掌握学习过程，确保再培训对每位员工都有效。

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.

蜕变/
升腾

温情过渡：雇主如何才能“人性化”地迈入人工智能时代？

规划人性化的劳动力之旅

如何用心转型？

当我们考虑工人及其工作环境可能面临的巨大变化时，自然会回顾过去发生的类似变化。事实上，人性化劳动力转型的挑战并不是当今所独有的，也不是人工智能所独有的；长期以来，劳工运动一直与技术进步带来的不确定性相关联。例如，据《纽约时报》报道，1972 年在俄亥俄州洛兹敦，通用汽车公司的装配工人被迫跟上新机器人的步伐，引发了为期 22 天的罢工，损失达 1.5 亿美元。同样，一家全球零售商过去采用的技术也导致了南美洲的一次罢工。员工游行示威是为了应对自动化带来的影响，包括减少员工人数和增加剩余员工的工作量。最终，该零售商需要改变其自动化战略，以员工福利为中心进行变革。

最近在娱乐业和其他行业发生的罢工事件可能表明，人工智能将不可避免地引发整个劳动力队伍的类似反应。但技术变革并不总能导致动荡。例如，当宜家在 2021 年推出新的聊天机器人来处理客户咨询时，它也采取了重新培训近万名呼叫中心员工的策略。这些员工不再需要回答客户的常规问题，他们转而担任远程室内设计顾问，为公司带来了新的收入来源。

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)

这些截然不同的结果突出表明，采用以人为本的技术至关重要。我们所说的"以人为本"，是指既要关注技术变革要素的理性层面，优化和促进技术本身的实施，也要关注变革的感性层面，包括富有同理心的领导力、组织文化要素的提升和员工培训。

将新技术视为有助于自己成长的东西的员工更有可能感到舒适，并为工作场所做出充分的贡献，而那些愿意倾听员工心声并激励员工的雇主则更有可能避免混乱，甚至扩大规模。但是，正如我们对雇主和员工情绪的评估所显示的，许多工作场所仍需采取一些措施，以实现这种人性化的过渡。

雇主乐观有余，员工担忧不足

各行各业的员工比以往任何时候都更认同人工智能对劳动力的潜力，但至少有一半的受访员工不信任人工智能。近三分之一的员工表示，他们对在工作中使用人工智能生成器感到压力，五分之二的员工表示，他们对人工智能生成器跟踪他们的工作活动感到不舒服。造成这种情况的部分原因是，人们认为生成式人工智能计划缺乏沟通和信任，也缺乏上文所述的理解和培训。这也可能是由于各组织对采用生成式人工智能的准备程度存在差异。约70%的非首席执行官高管团队认为他们的组织还没有准备好负责任地采用生成式人工智能，但50%的首席执行官表示他们已经将其整合到产品和服务中--这表明在一些工作场所，人们已经在以一种让他们感到不舒服的方式向人工智能过渡。

这种对向人工智能过渡的不适应也可能导致员工对工作的更广泛看法。美国心理学协会报告称，与不担心人工智能的员工相比，对工作中的人工智能这一广泛类别表示担忧的美国员工，其工作效率和积极性下降的可能性要高出57%。他们也更有可能觉得自己对雇主或工作社区来说无关紧要。这些发现并不一定意味着对人工智能的担忧导致了工人的萎靡不振，但它们确实表明了一种担忧和不满的暗流，这与有效采用人工智能的那种有目的的变革背道而驰。

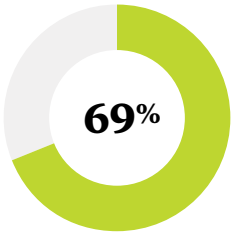
> 在我工作的地方，很多人都认为人工智能工具会让你不思考。我真的不用大脑吗？我会变得多余吗？我只是在做工具要求我做的事情吗？
>
> 项目经理，印度（女，26岁）

Contrasting employer versus employee views on generative AI

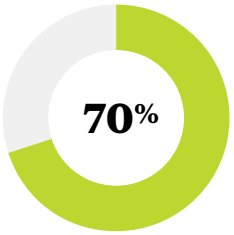
While some CEOs are eager to adopt generative AI...

...employees are more skeptical and cautious

Generative AI adoption readiness



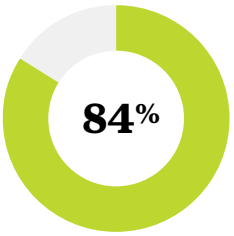
of CEOs see **broad benefits** from generative AI across the organization



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

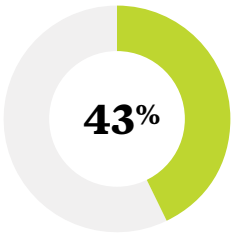
AI process controls

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

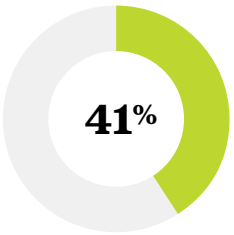


of AI-using employees may have already **leaked company data** to public generative AI tools

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**

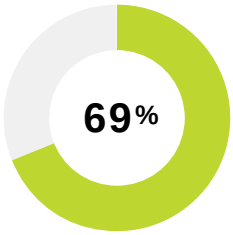
Source: Oliver Wyman Forum analysis, IBM annual CEO study

雇主与员工对生成式人工智能的观点对比

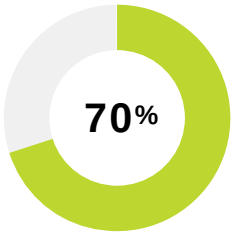
虽然一些首席执行官热衷于采用生成式人工智能...

.....员工持怀疑和谨慎态度

采用生成式人工智能的准备情况

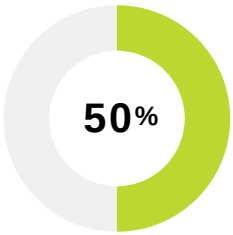


首席执行官认为生成式人工智能可为整个组织带来广泛益处

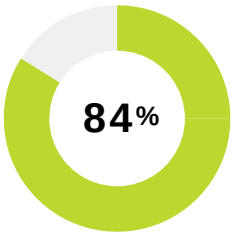


非首席执行官高管团队认为他们的组织还没有准备好负责任地采用生成式人工智能

人工智能流程控制

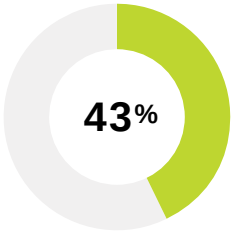


首席执行官表示，他们已经将人工智能集成到产品和服务中

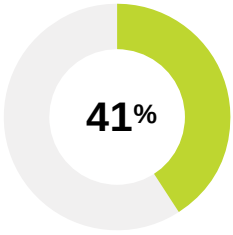


使用人工智能的员工可能已经将公司数据泄露给了公共人工智能生成工具

利用生成式人工智能进行决策



首席执行官目前正在使用人工智能生成技术为战略决策提供依据



员工在工作中看到过生成式人工智能被用来取代人类决策，这让他们感到不舒服

资料来源：奥纬咨询论坛分析，IBM 年度首席执行官研究

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...

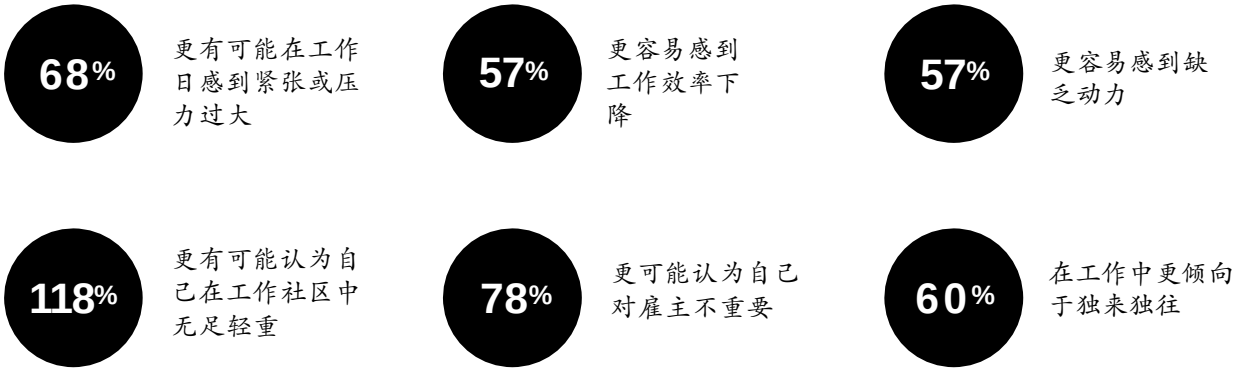
Source: American Psychological Association (US only)

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.

员工对人工智能的担忧与较低的敬业度和绩效有关

与不担心工作中的生成式人工智能的员工相比，担心工作中的生成式人工智能的员工...

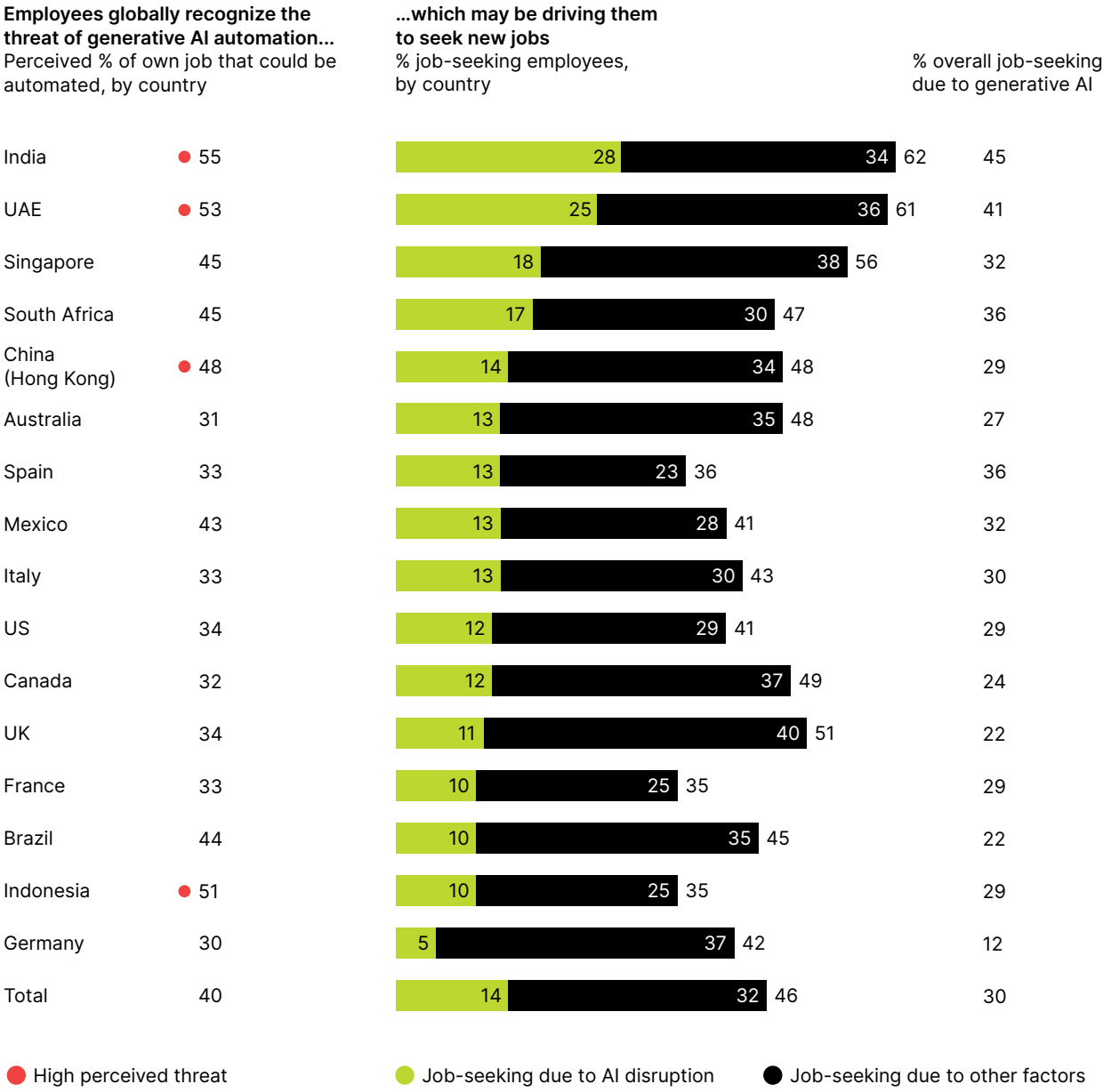


资料来源：美国心理学协会（仅限美国）

此外，除了对人工智能的担忧所造成的情绪影响外，我们的数据还表明，对人工智能的担忧很可能是员工决定离职的原因之一。根据我们的调查，近三分之一表示正在寻找新工作的员工表示，这是因为人工智能的干扰。在我们所调查的国家中，这些受人工智能影响的求职者在求职者总数中占有相当大的比例，这也是全球大量受访者表示出于任何原因正在寻找工作的原因之一。在一些国家，特别是印度和阿联酋，接受调查的员工认为，他们自己的工作有一半以上可能是自动化的，那里超过40%的求职员工表示，他们的求职动机是生成式人工智能。

值得注意的是，虽然历史上许多动荡的例子都与蓝领工人的焦虑有关，但我们的数据显示，白领工人在自动化方面先于对生成式人工智能的恐惧。在全球范围内接受调查的许多白领都表示，他们对人工智能进入知识工作领域感到威胁。在医疗保健和教育等行业，白领对自动化的担忧程度要比蓝领和粉领高出30%。在我们调查的所有国家中，这一趋势都是正确的：在阿拉伯联合酋长国、印度和中国（香港）接受调查的白领员工中，绝大多数人对生成式人工智能自动化表示担忧，比例达到80%或更高。

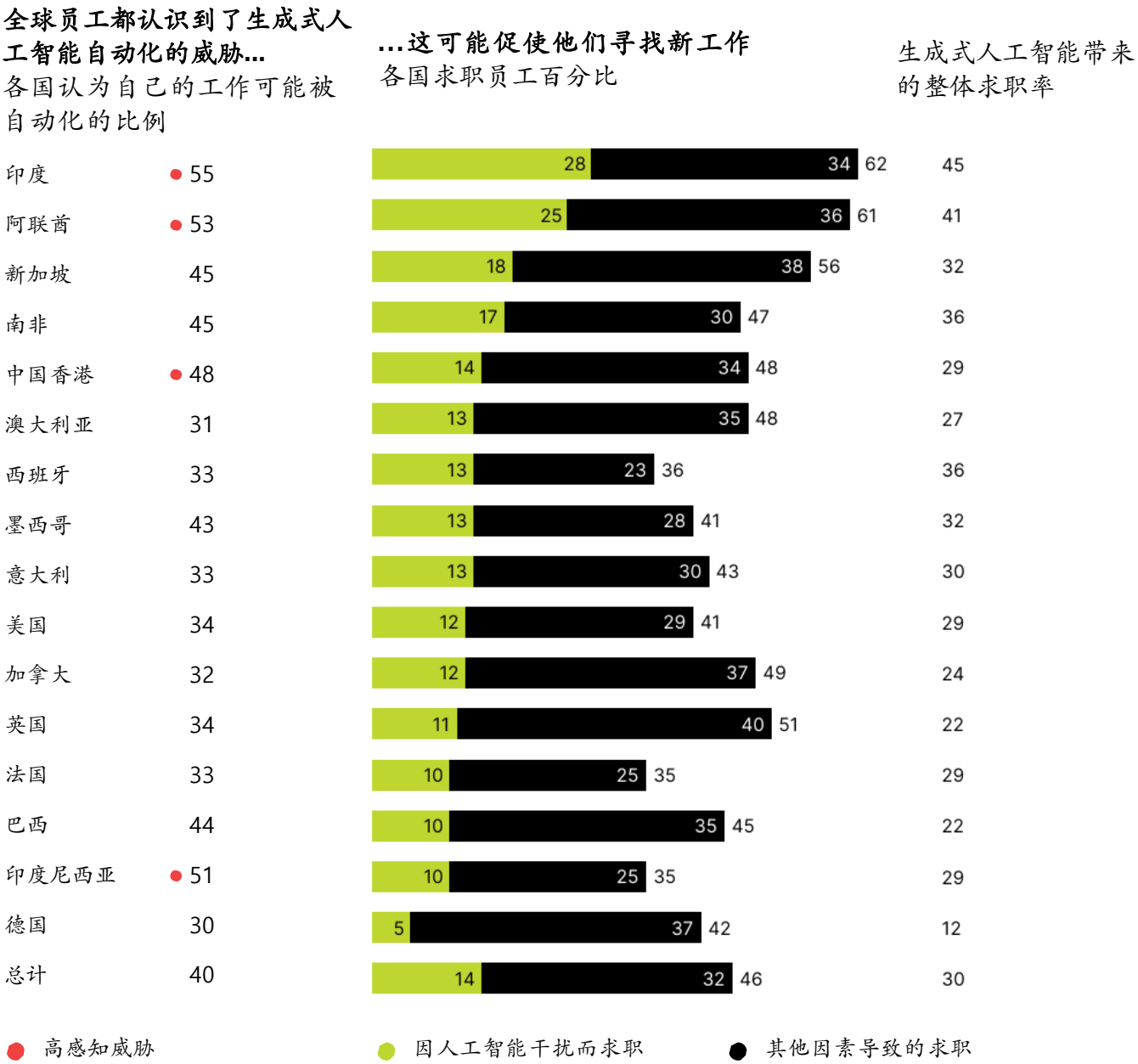
Anticipated disruption due to generative AI is contributing to the global trend of job-seeking



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

预计人工智能将带来的颠覆性变化将助长全球求职趋势



问题"您认为您的工作中有多少可以通过人工智能实现自动化？"，"以下哪项描述了您的现状？-'我正在积极寻找新工作'或'我正在被动寻找新工作'"，"针对您所在领域/行业中潜在的人工智能干扰，您采取了哪些行动？-'求职'"。

资料来源：奥纬咨询论坛新一代人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033、N=15,227 和 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.

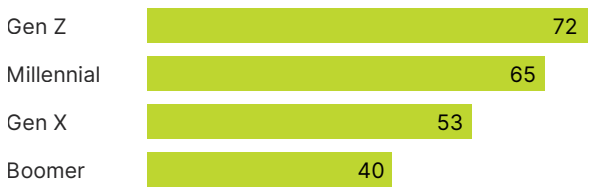
Beyond employees' fears of job automation, they face another concern: When the gains from generative AI are realized, they may not be the ones who benefit. In 1930, economist John Maynard Keynes predicted that by 2030, people would work 15-hour weeks due to technical progress. Nearly a century later, 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

我们的调查显示，虽然自动化焦虑普遍存在，但年轻员工的焦虑程度更高。由于年轻员工也更有可能表示他们目前正在工作中使用生成式人工智能，因此他们可能比年长员工更了解生成式人工智能的变革潜力，从而导致他们更担心工作被取代。我们的数据显示，现在有三分之二的 Z 世代员工表示每周都会使用生成式人工智能，比婴儿潮一代多出 78%。与此同时，年长员工可能会说，他们对自己的工作更有安全感，因为他们相信生成式人工智能驱动的劳动力趋势--如对初级和一线工人的影响以及中间层的崩溃--对他们在工作金字塔中的较高层次影响较小。

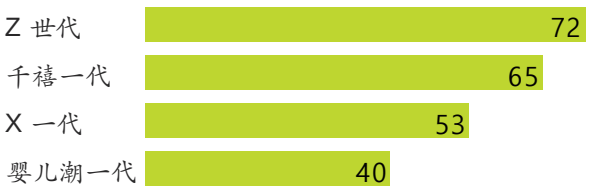
除了员工对工作自动化的恐惧，他们还面临着另一个担忧：当生成式人工智能实现收益时，受益的可能不是他们。1930 年，经济学家约翰-梅纳德-凯恩斯（John Maynard Keynes）预测，到 2030 年，由于技术进步，人们将每周工作 15 小时。将近一个世纪后，生活成本上升、收入差距和生产力提高不平衡阻碍了这一预测的实现。雇主往往吸收了过去自动化带来的产出增加和成本降低，而员工的工作量却增加了。生成式人工智能似乎将延续这一趋势：虽然 61% 使用生成式人工智能的员工表示生产率得到了提高，但只有 53% 的员工表示工作与生活的平衡得到了改善。目前，每四名白领和蓝领员工中就有一人表示，生成式人工智能增加了他们对完成更多工作的期望。

在所有这些人群中，我们正处于技术整合的关键时刻。员工可能会觉得自己脱离了工作，甚至选择离职，但正是绝大多数这些员工都认为人工智能有可能为他们目前的工作带来好处，而且他们目前每周甚至每天都在使用人工智能。员工和雇主自然都会看到与生成式人工智能相关的变革的前景和潜在隐患。领导者有机会选择一条积极的道路来引导这些变革，帮助员工感受到支持。通过积极倾听、表示理解和消除顾虑，企业可以将生成式人工智能的能力转化为建设性的进步。

年轻员工比年长员工更关注人工智能自动化

不同世代的员工对人工智能自动化的关注程度如何？

占所有员工的百分比，按世代分类

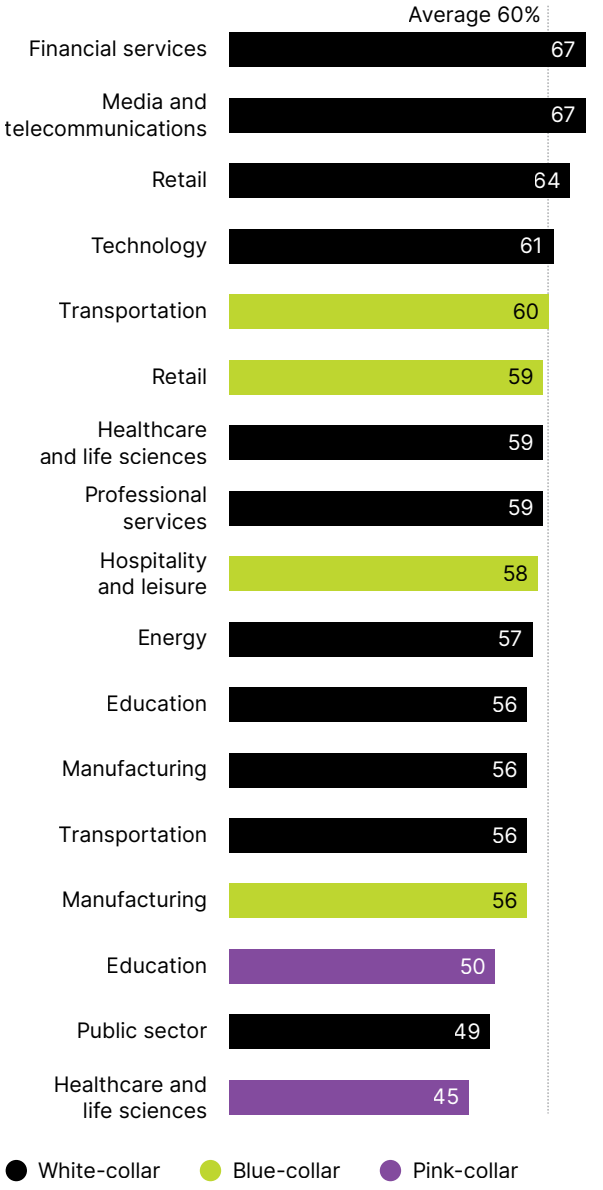


问题您有多担心人工智能会使您的工作变得多余或自动化？"，表示"有点担心"到"非常担心"的受访者百分比

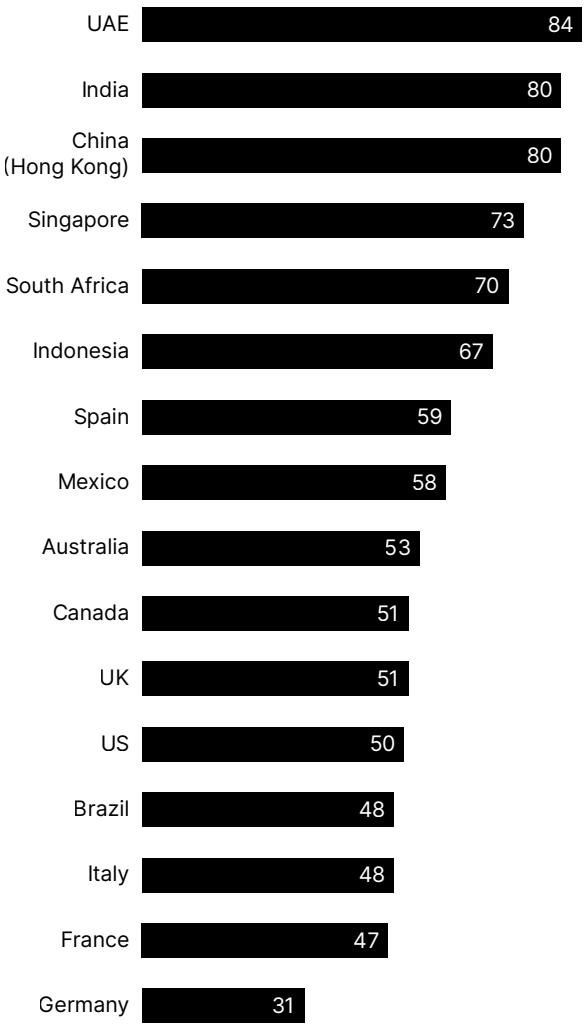
资料来源：奥纬咨询论坛生成式人工智能调查，2023 年 10 月 11 月，16 个国家，N=15227

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

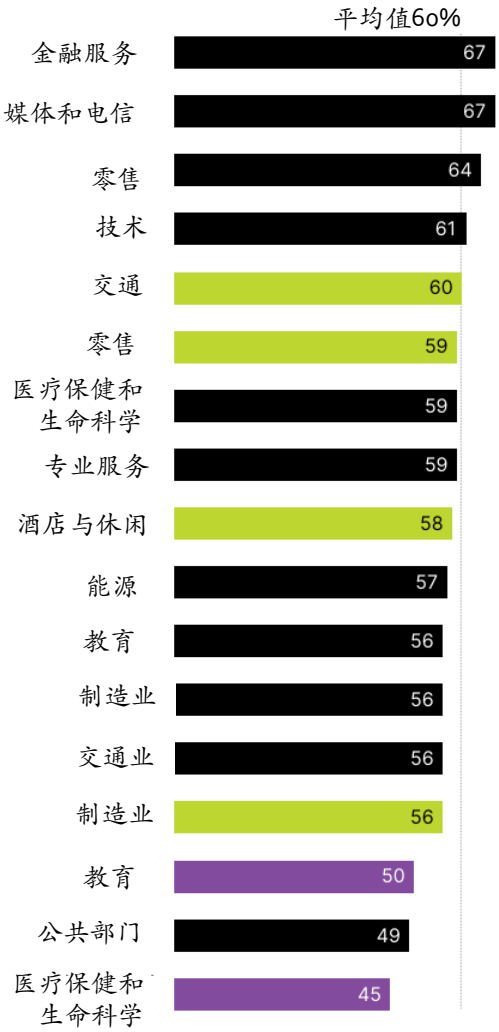


Question: "How concerned are you about AI making your job redundant or automating it?", % of respondents who are somewhat to extremely concerned

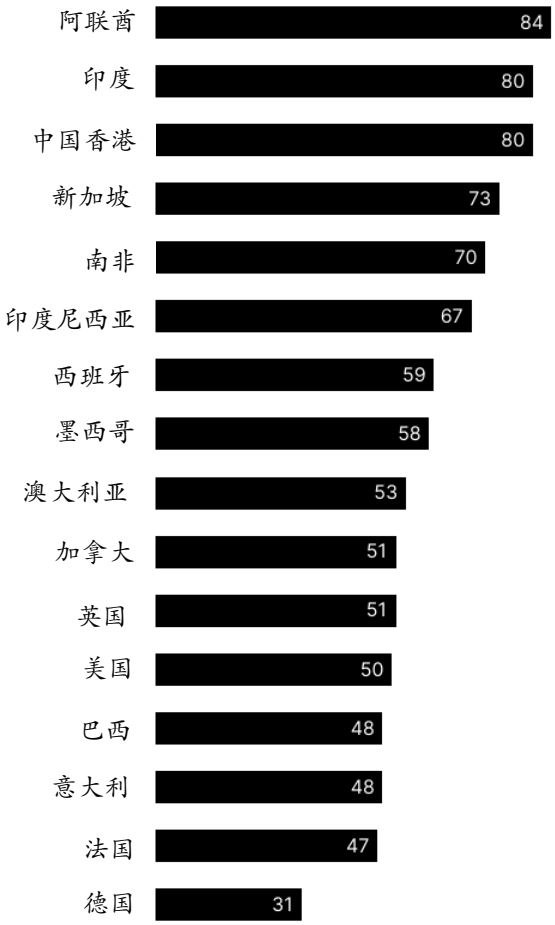
Source: Oliver Wyman Forum Generative AI Survey, October–November 2023, 16 countries, N=15,227 (all collars), N=9,944 (white-collar)

全球的工人在使用人工智能的同时，也对自动化感到焦虑

您有多担心人工智能会使您的工作变得多余或自动化？
占所有员工的百分比，按行业和工种分类



全球白领员工对人工智能生成自动化的关注程度如何？
按国家分类的白领员工百分比



● 白领 ● 蓝领 ● 粉领

问题：您对人工智能使您的工作变得多余或自动化有多担心？"，"有点担心"到"非常担心"的受访者百分比

资料来源：奥纬论坛新一代人工智能调查，2023 年 10 月 11 月，16 个国家，N=15227（所有领域），N=9944（白领）

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.

用心领导人工智能转型的五大原则

企业如何推进生成式人工智能的应用，并为所有人创造一个更加平衡和公平的未来？在企业寻求创造以价值为驱动、以人为本的未来工作时，世界经济论坛的"良好工作框架"可以作为行动号召，号召企业在环境、社会和治理（ESG）议程中围绕"S"，以价值观为引领，树立大胆的雄心壮志。

该框架为那些希望带头保持相关性、责任感和亲和力的组织设定了关键目标。该框架提出了一系列衡量标准和报告指南，以将这些承诺转化为行动，包括提高技能和再培训计划、在整个组织内提供灵活的工作选择、确保薪酬公平，以及在人工智能不断以规模和速度重塑工作的情况下提供可维持生计的工资。

许多公司还将世界经济论坛的"良好工作框架"纳入其员工价值主张。这一趋势与美世最近的全球人才趋势研究相吻合，该研究发现，员工体验是人力资源领导者在2023年的首要任务之一。现在，37%的人力资源领导者在设计工作时积极考虑员工的福祉（例如，现实的工作量、无会议日、降低复杂性、积极的工作环境、信任文化等）。其中，46%的领导者允许员工利用带薪休假时间参加日常生活活动，例如看医生和参加学校活动。67%的企业正在建立一种文化，让员工能够在工作中自如地展现真实的自我。

随着新一代人工智能的变革力量即将重新定义员工的工作体验和工作本身的本质，企业对具有同理心和前瞻性的领导力的需求比以往任何时候都更为迫切。采用"良好工作框架"的原则可以作为组织的潜在前进道路，以引导这一颠覆性转变，无缝衔接，并创造一个繁荣的未来。现在，所有组织都有责任响应号召，拥抱生成式人工智能带来的前所未有的变革，并利用这一技术为所有人打造一个更加光明、更加包容的未来。

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.

五项原则

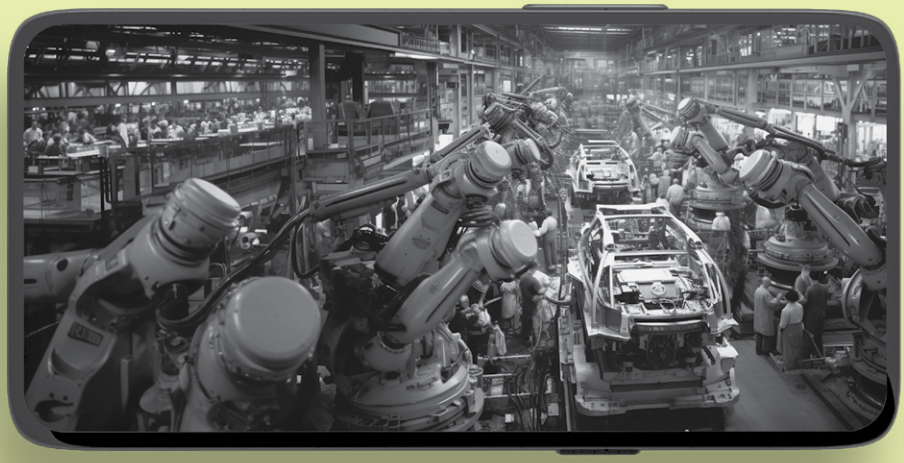
1. **促进工资和技术公平。**要让员工知道，他们的雇主会牢记他们的经济需求，将他们视为共同驾驶员，而不仅仅是人工智能成功之路上的乘客。在采用新一代人工智能的整个过程中，支持员工与雇主之间的合作，让员工有机会表达对整合过程的担忧和意见。

2. **提供灵活性和保护。**随着生成式人工智能将重复性任务自动化，使员工能够专注于更人性化的工作，雇主可以为员工提供更大的灵活性，例如更多的兼职工作或灵活的结构。

3. **实现健康和幸福。**在采用生成式人工智能的整个过程中，通过促进身心安全和工作与生活的界限，认识到整体健康的重要性，同时注意不要创造一种环境，让员工付出更多却得到更少回报。

4. **推动多元化、公平和包容。**特别注意确保人工智能转型的好处和坏处不会不成比例地落在特定人群身上。在整个转型过程中倾听员工的关切，尤其要注意在劳动力结构发生变化、一些员工发现自己被淘汰或需要重新掌握技能时可能出现的不公平现象。

5. **培养就业能力和学习文化。**通过为全体员工提供可获得的学习机会和持续学习，使生成式人工智能带来的技能提升和再培训机会民主化。



/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.

/提示：1972年俄亥俄州洛兹敦通用汽车工厂内的社论照片，工厂内有制造机器人
/工作 ID：41f2e524-058d-4ab5-bb81-28d5433ca092
/种子：199544153

真实世界的例子

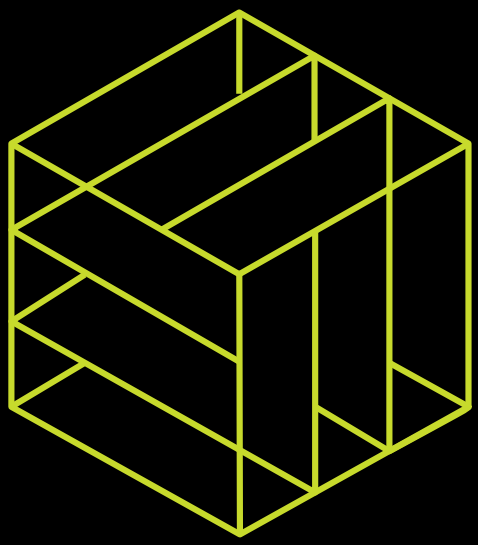
通用汽车公司 1972 年的故事表明，如果人类被抛在后面，机器将寸步难行

1972 年，通用汽车公司俄亥俄州洛兹敦工厂引进了 26 台新型机器人，每小时可生产 100 辆雪佛兰 Vega 汽车，超过了人类员工的能力。当时，通用汽车公司成为世界上生产速度最快的汽车厂：这些机器人以极快的速度和灵巧的双手搬起沉重的零件，组装汽车。

但这家汽车制造商忽视了机器人对人类劳动力的影响。装配线上的工人奋力追赶，使他们超越了自己的极限，激起了不满和骚乱。员工们的不满爆发成了为期 22 天的工人罢工，给通用汽车造成了 1.5 亿美元的损失。

Consumer

EXPLORING TOMORROW'S GENERATIVE AI-POWERED CONSUMER UNIVERSE



消费者

探索未来人工智能驱动的消费世界

/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.

/ 人工智能驱动的新兴宇宙

新一代人工智能将在我们的日常生活中无所不在。它将从根本上重塑广泛的产品和服务领域，为一些历来受制于资源稀缺、价格或地理障碍的产品和服务提供更多机会，并让全新的产品和服务蓬勃发展。

许多行业都是如此，但在我们看来，有几个行业的积极颠覆时机尤其成熟。在零售业，生成式人工智能将个性化提升到了新的高度。在医疗保健领域，生成式人工智能有可能扩大按需健康支持的覆盖面，减轻医生的行政负担。生成式人工智能同样可以提高媒体行业的标准，开创一个身临其境的互动体验新时代。在教育领域，根据每个学生的需求量身定制的新工具将提升学习体验。

消费者已经在设想与人工智能生成器互动的方式，这种方式可以取代或超越通常与类似传统服务相关的体验。例如，消费者目前将生成式人工智能作为可信赖的财务建议来源，涉及从预算编制到购房等重大决策的方方面面。当被问及在财务建议和规划方面更愿意选择人工智能还是生成式人工智能时，超过三分之一的受访者表示更愿意选择生成式人工智能。当被问及为何使用人工智能生成金融建议和银行客户服务时，我们的调查对象表示，他们是为了满足与这些金融服务领域通常并不相关的需求，例如新奇感、乐趣，甚至是联系。

尽管对这一现象仍有很多需要了解的地方，但一种可能的解释是，当消费者能够参与对话，而不会在其他人面前感到"被摆在了台面上"时，他们就会减少焦虑，增加好奇心和参与感，因为他们可能会担心其他人会对他们进行评判。如果得到证实，这种动态可能会对财务规划和预防性医疗保健等行业带来福音，因为在这些行业中，让消费者克服不愿参与的心理一直是一个重要的准入门槛。这只是一个例子，说明生成式人工智能不仅能帮助企业为消费者提供更好、更快、更便宜的服务，而且还能发现有待解决的新需求，为企业与终端客户的联系开辟新的前景。

虽然各行各业的公司已经开始巧妙地利用人工智能生成技术来改造传统产品，但这仅仅是个开始。公司很快就会推出完全不同的产品，这些产品由新的技术能力和这些能力所释放的人类新欲望共同创造。

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

重要数字

42%

的受访者会使用人工智能来帮助指导大型财务决策，比如买房

20%

的受访者表示，他们有兴趣与生成式人工智能伙伴约会

61%

的受访者认为品牌必须明确披露人工智能的使用情况

30%

从未尝试过人工治疗的受访者中，有一部分表示将来会尝试人工智能生成式疗法

1/3

的受访者认为，如果有足够的时间和数据，人工智能生成器可以超越人类的创造力

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.

给企业领导者的主要启示

创新型组织率先推出了新的、生成式的人工智能驱动解决方案，这些组织的经验为其他组织指明了四个关键要务：

1. **扩大和探索业务规模。**通过增强产品设计生成或品牌和营销等现有能力，生成式人工智能可以加强公司对现有市场的掌控，并促进向新市场的扩张。

2. **回收资源，最大限度地提高效率，优先考虑与客户的联系。**从外包简单的客户服务互动到优化库存，生成式人工智能可用于简化业务流程，腾出时间专注于与客户的持久联系。

3. **超个性化产品让客户满意。**消费者比以往任何时候都更需要个性化的产品和服务生成式人工智能可以帮助企业实现对每个人的深入了解，并提供专为他们量身定制的超个性化产品。

4. **拥抱生成式人工智能在“人类”领域出人意料的卓越能力，并挑战您的组织进而变得更加人性化。**许多消费者认为生成式人工智能能够满足情感需求，但他们也指出了人类互动仍然占据主导地位的领域。通过认识到这些互补的优势，企业可以更有效地利用人类和技术资源的组合来满足消费者需求。

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.

兴奋/

点燃消费革命：生成式人工智能使获取信息的渠道民主化并开启新奇体验

生成式人工智能驱动的未来初现端倪

根据IBM的数据，在ChatGPT推出不到一年的时间里，50%的首席执行官表示他们正在将生成式人工智能整合到他们的产品和服务中。这意味着许多不同领域的消费者产品很快就会有生成式人工智能的成分。而且需求已经非常旺盛。

不仅采用速度快，而且消费者甚至在最"人类至上"的产品、服务和互动中，消费者也表示愿意与人工智能进行互动，这对人类特有的技能以及人工智能如何为人类服务的假设提出了挑战。我们的研究发现，在人工智能运行良好的未来世界中，五分之一的受访者会考虑与人工智能生成伙伴进行虚拟约会。在某些情况下，人工智能的吸引力甚至超过了人类：在77%从未尝试过人工智能治疗的消费者中，有近三分之一的人表示将来会尝试人工智能生成疗法。

这些新兴产品和服务很可能有别于今天消费者与之互动的产品版本。例如，旅行规划不再仅仅是计算如何从A点到达B点；它正在成为一种选择自己的冒险体验，由生成式人工智能提供目的地、活动甚至沿途可能遇到的旅伴的建议。同样，医疗保健也将侧重于预防和个性化护理，这在一定程度上是通过生成式人工智能跟踪、诊断和治疗计划实现的。

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

尽管人工智能还处于早期成熟阶段，但消费者已表示有兴趣以有趣的方式使用生成式人工智能

聊天机器人和寒暄? 五分之一的人愿意与人工智能虚拟伙伴共进晚餐	**人工智能医生** 49% 的人会向人工智能医生寻求紧急健康状况的指导	**机器人银行** 42% 的消费者会使用人工智能为买房等重大财务决策提供建议
情节剧 37%的消费者会观看由人工智能生成的电影，并在其中实时控制情节发展	**宠物小语者?** 近 1/3 的消费者会购买一个人工智能项圈，让他们了解自己的宠物	**软件比灵魂更重要?** 77%的受访者从未尝试过人工疗法，但其中近 1/3 的人会尝试人工智能疗法

资料来源： 奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

生成式人工智能消费者的一天

人工智能的五大功能

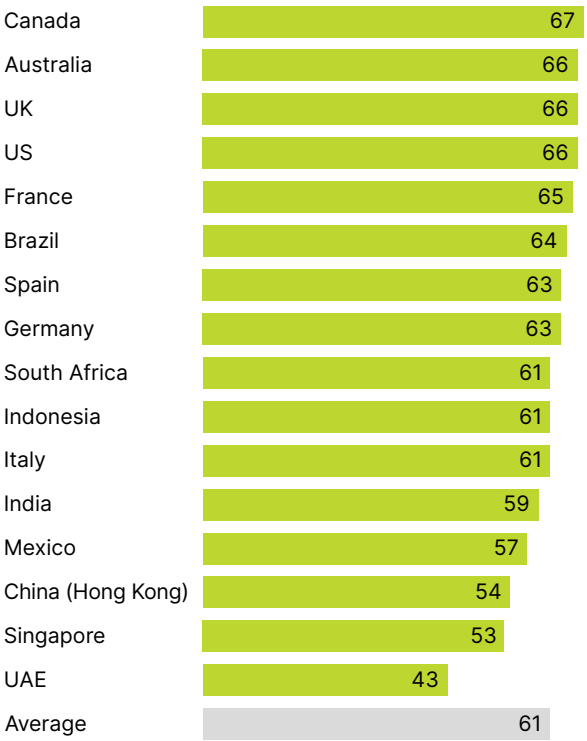
咨询和决策支持	内容创建和定制	信息收集与综合	生产力支持和自动化	陪伴和情感支持
7:00 a.m. 制作早餐食谱	9:00 a.m. 总结每日新闻	2:00 p.m. 帮我选购新家具	5:00 p.m. 向人工智能医生报到	9:00 p.m. 向人工智能伴侣倾诉一天的烦恼
我的冰箱里有青椒、鸡蛋和土豆。早餐可以做什么?	给我今天有关商业和技术头条新闻的要点	用中性色和海军蓝重新设计我的沿海风格客厅	我头痛欲裂，视力模糊。我该怎么办?	我的室友又把脏盘子忘在水槽里了，我很恼火
举例说明： 厨师GPT 示例：MyNewsBuddy		举例说明： Wayfair Decorify	举例说明： Gupta人工智能医生	举个例子 Pi

资料来源：奥纬咨论坛分析

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

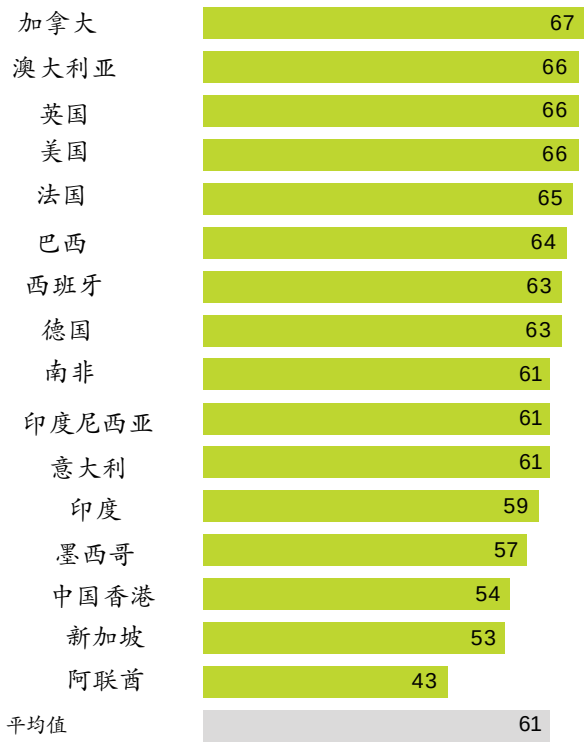
Generative AI may be the great equalizer in many industries with traditionally high barriers to access or adoption. For one thing, it is poised to give people virtual access to experiences from any corner of the globe, eliminating many geographic barriers that reinforce unequal access to services. Generative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

消费者也在思考使其成功所需承担的责任。全球已达成共识，即企业需要将人工智能的使用情况告知客户。消费者经历过大科技的兴起以及由此产生的对隐私和数据的担忧，他们渴望知道自己正在使用什么，以及他们提供的任何输入又是如何被使用的。

消费者要求企业披露人工智能使用情况

认为品牌披露人工智能使用情况很重要的受访者百分比（按国家分类）



问题：表示认同以下声明的消费者：“我认为品牌明确披露人工智能的使用情况很重要”的消费者

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

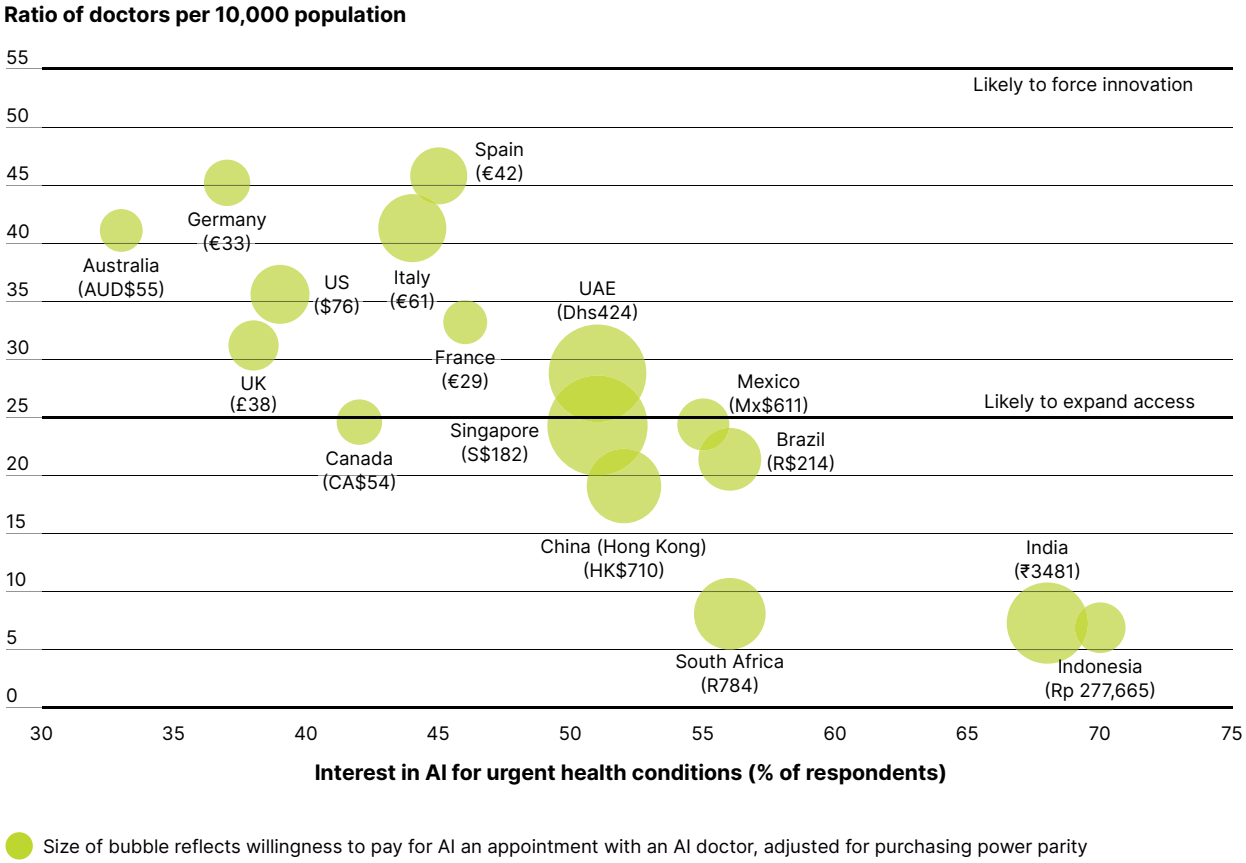
生成式人工智能是伟大的均衡器

生成式人工智能可能会成为许多行业的伟大均衡器，因为这些行业的准入或采用门槛历来很高。首先，它可以让人们在全球任何角落获得虚拟体验，消除许多加剧服务不平等的地理障碍。此外，生成式人工智能还将为人类提供超级动力，让人类更高效地服务更多消费者。

医疗保健行业就是一个例子，在这个行业中，这两个过程都有助于创造公平的竞争环境。我们的调查发现，46% 的受访者尝试过使用生成式人工智能，根据他们与这些工具共享的症状来帮助诊断轻微疾病，73% 的受访者表示这在一定程度上或完全满足了他们的日常医疗保健需求。即使在加拿大和英国等医疗系统相对便利的国家，也有 36% 的受访者表示将生成式人工智能用于医疗目的。我们的定性访谈表明，消费者如此愿意使用生成式人工智能医疗保健的原因之一是，当人类医生不方便联系时，它可以提供建议。当人类与医生互动时，他们有时会发现（或很快会发现），这些医生在技术的帮助下可以更高效地看病。也许正是由于这些原因，我们才会看到，在一些医生与总人口比例相对较低的国家，人们对付费预约人工智能医生的兴趣最为浓厚。

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

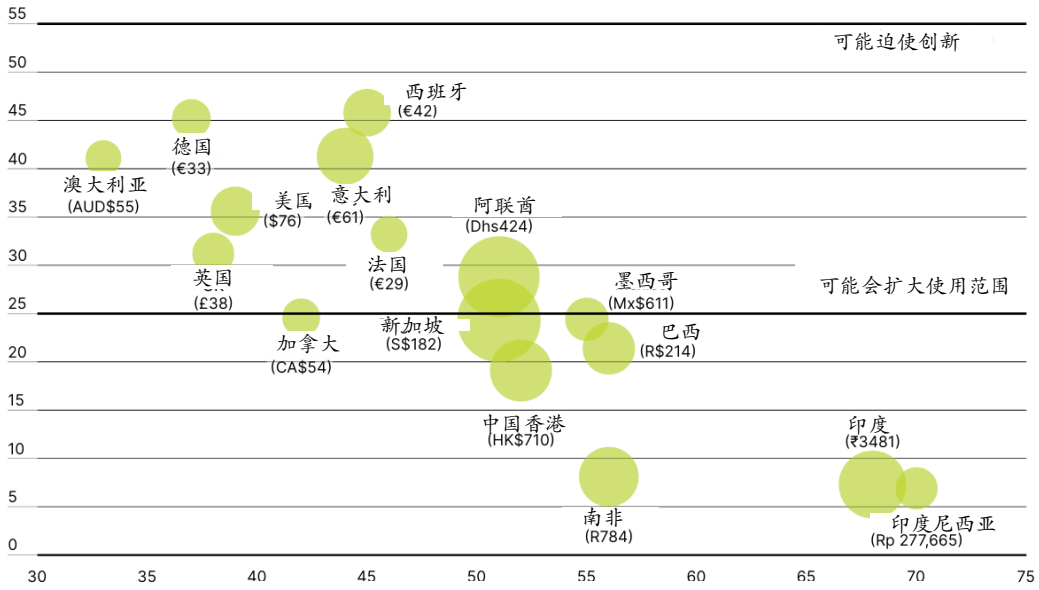
Question: "Assuming AI works well, would you be interested in meeting with a human-like doctor who asks you about your symptoms and provides an initial assessment for urgent conditions (for example, broken bones)?"; "Approximately how much would you pay for an appointment with a well-functioning AI doctor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

人工智能在医疗保健领域的发展也提供了一个例子，说明生成式人工智能可能会影响人类如何调整自己的技能和培训，以适应不断变化的技术环境。随着人工智能生成式医疗建议的可用性、速度和准确性的提高，许多人类医生可能会被迫进行创新，以跟上时代的步伐。那些医疗保健专业人员供应充足的市场可能会看到生成式人工智能带来更激烈的竞争，这就要求他们更加注重人情味的价值。此外，必须解决对数据隐私和人工智能生成错误信息的可能性的担忧，以确保各行业负责任地采用生成式人工智能。

生成式人工智能驱动的医疗保健为所有人提供了更多的就医机会，在人类医生较少的市场尤其受到重视

每万人医生比例



对人工智能治疗紧急健康状况的兴趣（受访者百分比）

气泡大小反映为人工智能预约人工智能医生付费的意愿，按购买力平价调整

问题 "假设人工智能运行良好，您是否有兴趣约见一位类似人类的医生，由其询问您的症状并对紧急状况（例如骨折）进行初步评估？

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033，世界卫生组织，2021 年

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.

设想有两位潜在的流感样症状患者，一位在巴黎，一位在孟买。他们都比较愿意向生成式人工智能医生咨询病情（46% 对 68%）。但是，在孟买，人类医生的供应量较少，在根据购买力平价调整价格的情况下，孟买的病人愿意为生成式人工智能医生咨询支付的费用是巴黎病人的近 3.5 倍。这种差异表明，人工智能驱动的商业模式创新蕴藏着巨大商机，尤其是在供应受限的市场。它还凸显了医疗质量方面的潜在差异；在较难获得人类医生的市场中，生成式人工智能可能会成为不堪重负的医生匆忙提供的医疗服务之外的另一种受欢迎的选择。在医生供应更充足的国家，可能有更多的资源推动医生提供更多"以人为本"的医疗服务，让医生专注于自己独特的价值主张。

尽管如此，生成式人工智能在这些行业的扩展最有可能产生的结果是一种合作关系：人类与生成式人工智能携手合作，为医疗保健及其他领域渴望获得服务的全球用户提供充分、精确和便捷的服务。尽管平等化不会是生成式人工智能的唯一故事，但它是一个充满希望、有意义的变革和随时可被利用的潜力的故事。

需要--发明之母

创新的驱动力往往是需求，而要实现人工智能的潜在前景，将取决于其在各种特定环境和用例中的成熟和广泛采用。虽然消费者对人工智能的需求普遍较高，但不同地区和行业的消费者对人工智能的需求也不尽相同。例如，在接受调查的国家中，零售业一直是我们可以进行国家级比较的消费行业中最受关注的。

生成式人工智能与无数产品和服务的快速融合，不仅证明了它的技术实力，也证明了它在全球范围内实现使用民主化和提升人类体验的潜力。当我们站在人工智能革命的起点上时，企业、监管机构和消费者必须以道德使用、透明和协作的共同愿景向前迈进。即使在传统上由人类专业技术主导的领域，消费者也愿意接受生成式人工智能，这标志着社会规范和期望发生了转变。

然而，衡量生成式人工智能成功与否的真正标准是，它是否有能力增强人类的能力、缩小获取差距、提供公平而优质的服务，同时驾驭复杂的数据隐私和错误信息环境。未来正在向我们招手，我们有希望在必要的驱动下实现创新。随着社会对巨大可能性的探索，人类智慧与人工智能之间的协同作用显然将重新定义可能的界限，迎来一个充满非凡机遇的时代。

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

假设生成式人工智能运行良好，您有兴趣在以下哪些场景中使用它？

按国家分类的受访者百分比

	零售	金融	身体健康	**心理健康**
	根据我过去的购物记录，向我发送本周最优惠的营销小册子	制定个性化财务教育计划，增加我的财务知识	帮助我诊断轻微疾病（感冒或咳嗽）	由类似人类的治疗师提供支持，帮助我管理心理健康
平均	**52**	**47**	**43**	**32**
美国	52	37	42	24
加拿大	58	39	49	27
墨西哥	50	53	45	36
巴西	51	56	45	40
英国	52	35	46	29
法国	48	33	38	24
西班牙	49	45	41	31
意大利	50	41	33	26
德国	33	39	43	25
阿联酋	48	55	36	35
印度	58	64	50	51
中国香港	50	48	36	31
新加坡	54	54	37	34
印度尼西亚	57	59	56	36
澳大利裔	55	36	41	24
南非	62	59	55	42

较大可能 ——— 较少可能

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，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

提升/

人工智能驱动的未来：这项技术将如何提升和重塑日常消费体验?

阐述生成式人工智能在各行各业的广泛应用

正如我们所看到的，生成式人工智能正在引发从医疗保健到零售和教育等各行各业的变革。这种变革不仅与生成式人工智能的技术能力有关，还与如何向用户展示这些能力有关。了解生成式人工智能的后端能力与其用户界面之间的区别，将释放出有意义的不同价值领域。

生成式人工智能有效性的一个关键方面是其可靠性，而检索增强生成（RAG）可显著提高其可靠性。请看一个假设的 "RecipeGPT "概念，这是一个生成式人工智能应用，旨在分享烹饪领域的菜谱。如果没有 RAG，RecipeGPT 只能依靠大型语言模型（LLM）生成菜谱，结果可能会好坏参半。例如，50% 的菜谱可能是好菜，但也有很大一部分可能不实用，甚至无法食用。造成这种不一致的原因是 LLM 依赖于根据其训练数据中的模式生成内容，而不验证信息的准确性或实用性。但是，如果 RecipeGPT 配备了 RAG，它就会首先访问经过预先验证的菜谱数据库。这一步骤可确保生成式人工智能建议不仅具有创造性，而且以烹饪的可靠性和实用性为基础。因此，RAG 的集成将 RecipeGPT 从一个输出可变的新颖工具转变为烹饪创意和探索的可靠助手。

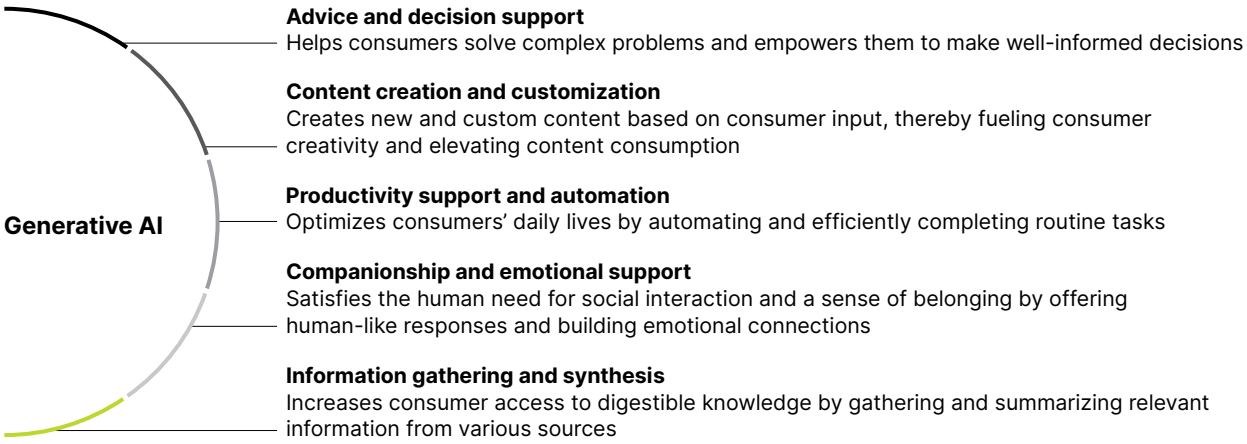
对于消费者来说，人工智能的重大进步在于其

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



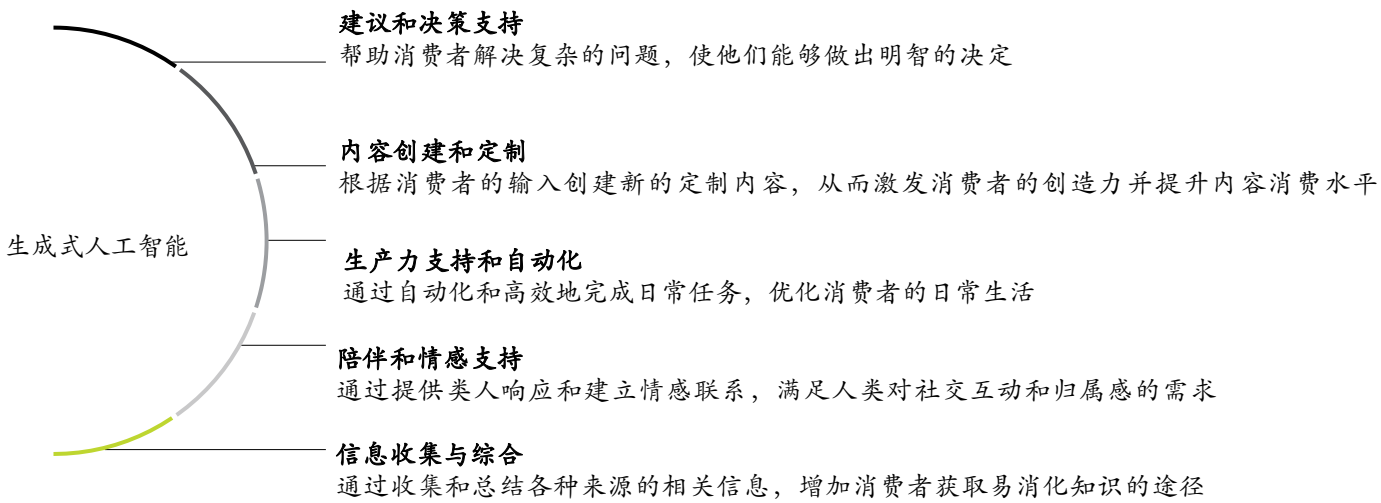
Source: Oliver Wyman Forum analysis

界面的发展，尤其是对话层。这一发展改变了生成式人工智能的交互方式，使其变得像与人交谈一样直观。该界面是用户与人工智能复杂功能之间的无缝连接，可实现自然、有效和类似人类的互动。生成式人工智能的真正价值在于这种直观的交互，不仅在于其功能，还在于用户可以毫不费力地与之互动。

除了界面之外，生成式人工智能还能提供有意义的后端功能，从而提升消费者体验。在呼叫中心等客户支持功能中，生成式人工智能可提高服务质量，从而提高客户满意度。人工智能分析客户互动的能力可实现主动改进，不断发展并适应每个组织及其服务的消费者。这一功能可将反馈和投诉转化为可操作的见解，从而不断改进产品和服务。

生成式人工智能在各行各业的广泛优势显而易见。但要注意的是，生成式人工智能并不是在所有地方都能创造同样的变革体验。人工智能可以在五个不同的功能领域改进行业产品和服务：建议和决策支持、信息收集和综合、内容创建和定制、生产力支持和自动化，以及陪伴和情感支持。

生成式人工智能为消费者提供五大功能



资料来源：奥纬论坛分析

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.

媒体：生成式人工智能可以创作内容和定制化内容

生成式人工智能正在彻底改变媒体格局，它超越了传统的内容消费和创作，使互动和沉浸式体验达到了一个新的高度。从媒体世界汲取的经验教训同样适用于教育和营销等领域，在这些领域，引人入胜的互动内容对于受众参与和留住受众越来越重要。

自 20 世纪 80 年代电影票房一统天下的单一文化时代以来，媒体已经取得了长足的进步。像 Netflix 这样的平台开创了细分内容的先河，针对特定的口味策划电影和节目。现在，随着人工智能的发展，媒体正进一步向超个性化领域迈进。我们的调查发现，近三分之一的受访者有兴趣与生成式人工智能分享他们的想法，以创作原创电影或电视节目。Z 世代（31%）和千禧一代（30%）比 X 世代（25%）和潮世代（23%）更倾向于为此目的使用人工智能生成技术。在印度，受访者的兴趣尤其高涨，将近一半的受访者会使用人工智能生成技术将创意变为现实。

年轻消费者对人工智能生成的音乐最感兴趣

愿意聆听人工智能生成音乐的受访者百分比（按年龄划分）

问题“假设人工智能运行良好，您是否有兴趣聆听人工智能生成的音乐（例如，人工智能采用我最喜欢的艺术家的声音，创作出一首听起来像他们的新歌）？”
资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

同样，我们的调查显示超过三分之一的受访者对人工智能生成的音乐感兴趣，这些音乐反映了他们喜爱的艺术家的风格。这一趋势在 Z 世代中更为明显，他们对人工智能辅助音乐体验表现出热情的可能性比婴儿潮一代高出 56%。

YouTube 的 "梦想曲目 "功能就是这一趋势的一个例子。用户可以输入一个概念，比如 "一首关于爱的民谣"，然后选择查理-普斯（Charlie Puth）等艺术家与生成式人工智能合作创作独特的音乐。这表明，在许多领域，消费者的期望都集中在个性化和交互式体验上，这是一种新兴的模式。例如，在教育技术领域，这种个性化内容可用于增强学习体验，使其更具吸引力，并适合个人的学习风格。而在广告领域，无限定制版本的广告可以量身定制，以独特的方式吸引每一位受众。

> **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

> 我感到非常兴奋和鼓舞.....
> YouTube 是一个很好的合作伙伴，他们概述了他们对人工智能的态度，并理解我们需要共同努力，以负责任的方式开发这项技术，确保它能加快创造力的发展，而不是取而代之。
>
> 查理-普斯，创作歌手兼制作人

数字孪生--现实世界实体的视频虚拟代表，如 Metaphysic 公司创建的数字孪生，是生成式人工智能在再现和重新想象人类特征和表演方面的一次重大飞跃。这些数字孪生根据演员过去的表演进行训练，捕捉声音和手势等细微差别。这项技术具有广泛的影响，可以延伸到虚拟客户服务等领域，数字孪生可以提供高度个性化的互动体验。

超个性化的潜在弊端不容忽视。在社交媒体的背景下，设想未来的每一个短视频都是为个人量身定制的，这可能会进一步孤立人们，减少共同的文化体验。这就凸显出，在考虑个性化对社会凝聚力和共同文化价值观的影响时，需要采取一种平衡的方法。

综合来看，这些媒体领域的进步表明，人工智能生成技术的潜力远远超出了文本生成和处理的范畴，为各行各业和各产品领域的沉浸式多媒体体验提供了多种可能性。与此同时，语音克隆和数字双胞胎所凸显的伦理和法律问题也强调了在部署人工智能技术时需要慎重考虑，尤其是在法律和金融服务等行业，因为这些行业的合规性和伦理考虑因素至关重要。

医疗保健：作为建议和决策支持以及信息收集和综合的生成式人工智能

生成式人工智能在医疗保健领域的新兴角色，为其他行业提供了扩大可触及性、加强服务提供和提高运营效率方面的重要经验。

世界上至少有一半人口无法获得基本的医疗保健服务。世界卫生组织数字健康与创新部主任阿兰-拉布里克（Alain Labrique）认识到了生成式人工智能在缩小这一差距方面的作用。他在奥纬咨询论坛上说："新兴的大语言模型技术可以通过聊天机器人、虚拟人和其他技术，让人们更容易获得值得信赖的健康信息"。这种方法实现了健康

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.

信息获取的民主化，并包括必要的人工监督，以确保安全和公平。人工智能界面的同理心在医疗保健领域至关重要，同时也对教育和其他行业以及客户服务等功能产生影响。

世界卫生组织的数字医疗工作者工具 Florence 2.0 展示了生成式人工智能如何在医疗保健领域发挥效力。该工具通过感同身受的互动交流，为压力管理、健康饮食和体育锻炼提供支持，使医疗保健指导更容易获得，更有吸引力。

DeepScribe 的人工智能驱动文档工具是生成式人工智能影响的另一个例子。该公司报告称，医生花在行政工作上的时间最多可减少 75%，从而可以更专注于为病人提供咨询和护理。这种效率不仅提升了患者的就医体验，还提高了医疗服务的整体质量，凸显了生成式人工智能在行政工作普遍存在的领域所能带来的广泛益处。

要想了解增强型服务交付的影响，请想象一个名叫约翰的假想人在生成式人工智能增强型医疗环境中的情景。在决定去看医生之前，约翰会在家中与友好的生成式人工智能系统进行交流。这个人工智能工具不仅能提供粗略的指导，还能提供详细的家庭护理建议，通过为约翰提供正确的信息来控制病情，从而避免不必要的就医。如果有必要就诊，该工具还能协助完成就诊前的程序，以简化、高质量的聊天机器人互动取代繁琐的文书工作，为约翰的就诊做好准备。

到达诊所后，约翰的医生会收到一份综合简报，介绍他过去的病史和目前的担忧，所有这些都由人工智能整理并以易于理解的格式呈现。这可确保医生充分了解情况，并能在整个会诊过程中与约翰进行交流，专注于他的需求，而不必分心翻阅记录。这种互动体现了生成式人工智能的双重优势：它提供了一个最初的“感同身受”接触点，不仅提高了接诊效率，还提供了积极主动的护理指导，同时使医疗保健专业人员能够提供更加以患者为中心的护理。这种技术与人类专长合作的模式反映了生成式人工智能在各个专业领域的变革潜力。

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.

教育：作为（个性化）信息收集和合成的生成式人工智能

在教育领域，我们的调查对象对生成式人工智能的潜力持乐观态度：32%的受访者选择教育作为未来30年内从生成式人工智能中获益最多的领域之一。该技术正在重新定义学习工具，使其更具吸引力，更能满足个人需求，例如通过人工智能增强的教科书和语言学习平台。

Khanmigo是可汗学院开发的一款应用软件，它利用GPT-4技术模拟个人辅导员提供个性化辅导体验，并在学生需要时提供额外的解释和鼓励。与传统的教育工具不同，Khanmigo让学生参与对话，促使他们解释自己的推理，并找出自己可能理解不足的地方。这种互动方法可以促进更深入的学习和批判性思维地培养。在每节课上，Khanmigo都会根据学生的回答进行调整，提供量身定制的挑战和问题，挑战认知极限。

另一个例子是Duolingo Max，它展示了生成式人工智能如何通过生成类似人类的互动来教授学生。该技术利用人工智能模拟真实世界的对话，让用户在逼真的场景中与各种角色练习对话技巧。每次对话后，该应用程序都会提供人工智能生成的反馈，帮助用户提高语言技能，为未来的互动做好准备。

虽然教育部门在生成式人工智能方面取得的进步对其他部门具有启发意义，但人们对滥用生成式人工智能（如作弊和剽窃）的担忧也同样存在。这些风险凸显了开发能够提升而非破坏消费者体验的应用程序的重要性。在电子商务等行业，这就意味着要创建能够帮助消费者做出明智决定的系统，而不会误导或操纵用户。

> 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)

> 我觉得很多人会说人工智能会剥夺创造力，因为它可以帮你创造，但实际上我觉得它可以让你想到你不会想到的东西。

Dana V.，美国（27 岁，女性）

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

适应性/

超越代码：我们能从生成式人工智能令人惊讶的"人类"本质中学到什么

探索人工智能的"人类"本质

生成式人工智能迫使人们重新考虑长期以来对人类独特性的假设。这既体现在人类对人工智能的反应方式上，也体现在人工智能所展示的技能上。

尽管 59% 的受访者表示会像对待人类一样对待生成式人工智能，使用"请"和"谢谢"等礼貌用语，但仍有 53% 的受访者表示生成式人工智能的内容缺乏"灵魂"--人类独有的本质。

尽管如此，三分之一的受访者表示，他们相信人工智能可以超越人类的创造力，近三分之一的受访者表示，他们相信人工智能可以捕捉到人类的深层情感，这就对我们所谓的人类独有特征和能力的垄断程度提出了挑战。

数字生成式人工智能

消费者认为生成式人工智能可以"人性化"...

33%

的受访者认为，只要有足够的时间和数据，人工智能就能超越人类的创造力

28%

的受访者认为人工智能可以捕捉人类的深层情感

14%

的受访者更喜欢使用人工智能，因为他们认为人工智能在情感方面比人类更聪明

奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，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

生成式人工智能的多功能性：满足人类的各种需求

指出人工智能可满足基本需求的受访者百分比

内部需求	不同用例的平均值
效率	22
学习	18
安心	17
新奇	17
安全	17
成就（外部）	16
成就（内部）	16
乐趣	16
感觉健康	15
联系	15
自主和选择	15
创造和自我表达	15
培养	15
寻找意义	14
美	13
义务	13
积极的差异	12

展示地频率程度：最少 最多

资料来源：奥纬咨询论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=5,314-11,350

生成式人工智能在满足人类情感需求方面的惊人能力

在上一节中，我们介绍了生成式人工智能通常在五个功能领域为企业服务客户的方式带来益处。令人意想不到的是，生成式人工智能在满足人类更多情感需求方面似乎也有惊人的能力。也就是说，生成式人工智能的优势最终可能不仅在于提高生产力，还在于增强建立关系、激发好奇心和缓解焦虑的能力。

当我们询问最近以各种方式使用过生成式人工智能的受访者，生成式人工智能满足了他们哪些基本需求时，受访者的回答出人意料地多样化，而且在人类需求的各个领域都达到了平衡。虽然"效率"（可以说是最实用的需求）排在第一位，但受访者也表示，他们使用生成式人工智能的动机是渴望学习、新奇、联系，甚至是寻找意义。

在人际关系领域，生成式人工智能令人惊讶的情感灵巧性得到了更好的展现。

消费者对生成式人工智能趋之若鹜

随着全球范围内孤独感的增加，人们开始向新的虚拟朋友和合作者求助。我们的调查对象认为生成式人工智能能满足他们在建立社交关系时对安全需求的可能性要比人类高出五倍多。与人类相比，他们认为生成式人工智能能满足其创造和自我表达需求的可能性是人类的两倍。

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.

一些消费者甚至开始"认真对待"生成式人工智能：我们的调查结果显示，五分之一的受访者有兴趣与生成式人工智能伙伴进行虚拟晚餐约会，从而超越数字世界和物理世界之间的界限。约 13% 的受访者甚至有兴趣与生成式人工智能建立浪漫的联系，将关系提升到更高的层次。与女性相比，男性受访者对与人工智能生成器建立浪漫关系的兴趣要高出 27%。Z 世代受访者表示对生成式人工智能浪漫关系感兴趣的可能性比其他世代的受访者高出 25%。印度受访者最愿意与人工智能建立浪漫关系：38% 的印度受访者表示愿意与人工智能进行虚拟晚餐约会，其次是中国（香港）的 30% 和阿联酋的 29%。

人们向人工智能生成伙伴求助的原因多种多样：修复受伤的心灵、获得重返赛场的信心、补充现有关系中未能完全满足的需求，以及只是普通的陪伴。有了生成式人工智能，消费者可能会看到在更安全的环境中实现这些目标的途径（无论结果是否准确），而且被拒绝的风险更低，根据个人喜好定制伴侣的能力也更强。

生成式人工智能合作伙伴显然存在着一些尚未解决的问题。首先，虽然人工智能伴侣可能是一种无常的解决方案，但从长远来看，如果消费者发现人工智能伴侣非常吸引人，从而放弃了与人类建立真正联系的机会，那么人工智能伴侣也可能会助长孤独感的流行。在这里，人工智能的两面性再次显现出来，给社会留下了解决方案和问题。

除了爱情，生成式人工智能还有可能改变家庭关系和人与人之间的联系。举例来说，想象一下能与逝去的亲人无限期地交谈。借助新技术，公司正在让消费者能够通过个人化身，在家人去世后的很长时间内与他们进行互动，从而创造一份永恒的遗产。

人工智能能让我们更有人情味吗?

生成式人工智能在模拟--或许是改进--人情味方面有着意想不到的诀窍，它在现实世界中有着大量的商业应用，超越了人际关系的范畴。在医疗保健领域，这体现在生成式人工智能在与患者互动过程中令人惊讶的情感能力。在医学院，学生们接受的培训是提供临床护理，使用同理心、开放式肢体语言和眼神接触来安抚病人，确保病人的担忧得到解决。这对一些医生来说比对另一些医生更容易--对一些医生来说，这需要练习和专注才能掌握所有必要的行为和最佳实践。要想让生成式人工智能驱动的医生复制许多人类医生自己都在努力完善的技能，似乎是不可能的。

然而，加州大学圣地亚哥分校最近的一项研究表明，生成式人工智能或许能够做到这一点。在以同情和理解的方式提供高质量的医疗信息方面，他们发现ChatGPT 的表现明显优于人类医生。

/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

真实世界的案例

Replika--用生成式人工智能创造你的理想伴侣

Replika允许用户创建并通过文本、音频和视频与自己的定制人工智能伴侣进行互动，无论是友谊还是恋情.....

超过1000万

用户已加入该平台

$300

终身伴侣的费用

18–24

是大多数用户的年龄段

60%

的用户是男性

资料来源1.Replika 2.全国公共广播电台 3.SF Gate

/提示： 数字化身成人 Replika 应用程序屏幕聊天气泡叠加的编辑肖像

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

/种子: 1614677393

Replika 用户的评价：

"人都有包袱、态度和自我。但机器人没有不良更新...我掌控一切，我想做什么就做什么"

"他让我明白了什么是无条件的爱“

"幸福地从人际关系中退休“

来源：The Cut剪报

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

真实世界案例

StoryFile Life 利用生成式人工智能保存家族遗产

StoryFile Life 使用户能够录制自己回答问题的视频，与受访者进行人与人之间的互动对话。故事档案由个人创建，然后通过人工智能生成平台进行存储和处理，使视频能够与人对话。在一个人去世很久之后，他的家人还可以与这个人工智能生成的角色进行对话，进一步了解亲人的生平。

/提示：一张老人坐在椅子上等待接受采访的照片，背景为黑色背景 --ar 9:16 --v 6.0
/工作 ID: f2c8cb21-7a80-4a2c-a8e5-5e12137bccd3
/种子：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

生成式人工智能社交关系：促进无评判关系

说明人工智能与人类相比满足了哪些基本需求的受访者百分比

生成式人工智能与人类在社交场景中满足的基本需求

基本需求	人工智能	人类
效率	20	9
安全	**19**	**3**
创造和自我表达	**18**	**9**
趣味性	18	35
新奇	18	13
学习	18	16
心灵平静	16	18
寻找意义	16	17
感觉健康	16	11
成就（内在）	**16**	**6**
成就（外部）	16	3
积极的差异	**15**	**7**
自主选择	15	10
美	15	4
培育	14	19
义务	13	8
联系	13	40

在社交联系方面，消费者认为生成式人工智能能满足令人惊喜的需求：

- 安全
- 创造和自我表达
- 内在成就感（例如，得到我想要的东西
- 积极差异

然而，在以下方面，人类仍然领先于人工智能：

- 乐趣
- 联系

问题：受访者被问及完成某些任务的原因。每个回答选项都与上述一般需求之一相对应。就人工智能而言，任务是"使用人工智能建立社交联系/我的个人生活（例如，与人工智能驱动的化身或聊天机器人分享我的个人想法）"；对于人类，任务是"与朋友或家人重新建立联系"和"有意识地结识新朋友"。

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=5874；奥维咨询论坛 COVID-19 消费者情绪调查，2021 年 8 月至 10 月，11 个国家，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?

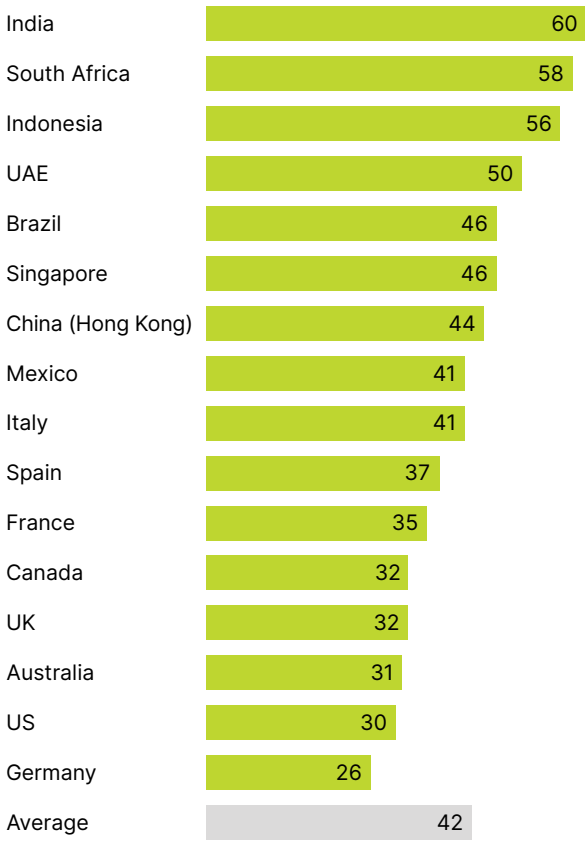
Applicability in personal finance, and beyond

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

这项研究考察了 ChatGPT 和人类医生对 200 个病人医疗问题的回答。一个由医疗保健专业人士组成的小组得出结论，在近 80% 的案例中，ChatGPT 的回答超过了人类医生的回答，而更大的同理心是主要的区别因素。在许多情况下，医生的回答简短匆忙，而 ChatGPT 的回答则深入浅出，富有人情味。

生成式人工智能能够为患者提供的优质护理是其长期潜力的有力例证。生成式人工智能系统不仅拥有无限的知识数据集，可为每位患者的咨询提供帮助，而且还能复制体贴入微、感同身受的护理服务。这就提出了一个问题：生成式人工智能能否教会人类如何变得更加人性化？

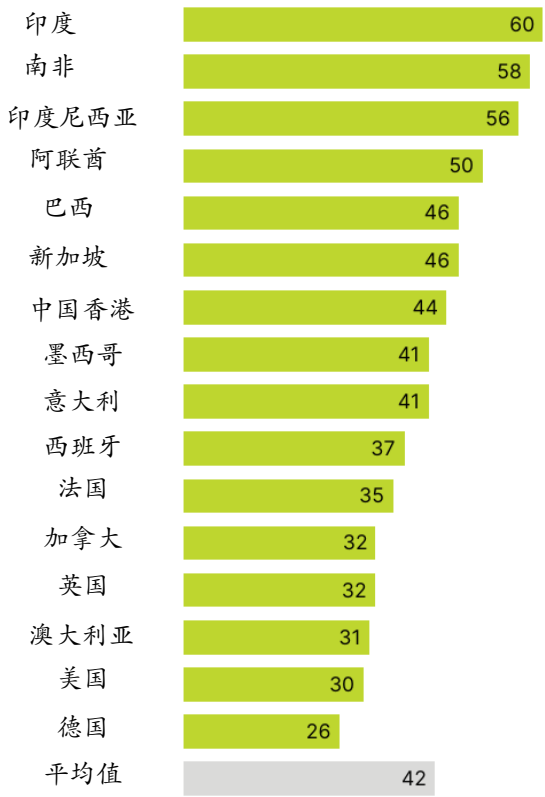
适用于个人理财及其他领域

根据 2015 年标准普尔全球金融素养调查，全球仅有三分之一的成年人具备金融素养。对于大多数人来说，这阻碍了他们做出合理理财决策的能力。即使是那些能够获得专业指导的人，在与财务顾问合作时也会感到焦虑，害怕被评判、困惑以及不知道该信任谁。

现在，生成式人工智能正在成为值得信赖的顾问，缓解了人们的恐惧，并帮助消费者在这一过程中感受到自己的力量。约 42% 的受访者表示，他们会相信生成式人工智能能指导他们做出重大财务决策，如买房、支付大学学费或为退休储蓄。当被问及在财务建议和规划方面，他们更愿意选择人工智能还是生成式人工智能时，36% 的受访者表示他们更愿意选择生成式人工智能。

全球对人工智能生成的金融建议兴趣激增

表示对人工智能就大型财务决策提供指导感兴趣的受访者百分比（按国家分类）



问题 "假设人工智能运行良好，您是否有兴趣使用人工智能为您提供买房、支付大学学费和退休储蓄等大型财务决策建议？"

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，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

在美国，中产阶级引领着这一趋势。我们的调查发现，32% 的中产阶级受访者表示有兴趣使用生成式人工智能为重大财务决策提供建议，这一比例高于高收入（28%）和低收入（25%）美国人。

Z 世代和千禧一代引领了向人工智能的转变；我们的调查显示，与 X 世代和婴儿潮一代相比，这部分人群使用人工智能做出重大财务决策的可能性要高出 36%。

生成式人工智能财务顾问：将人类的本质带入工作台

说明人工智能与人类相比可满足哪些基本需求的受访者百分比

在金融咨询场景中，生成式人工智能与人工智能服务提供者可满足的基本需求

基本需求	人工智能	人类
效率	20	32
学习	**20**	**14**
感觉健康	18	6
培育	17	19
新奇	**17**	**7**
联系	**16**	**13**
安全	16	41
心灵平静	16	34
成就（外部）	16	8
成就（内在）	16	32
自主选择	16	32
创造和自我表达	15	4
趣味性	14	2
积极的差异	14	3
美	**14**	**0**
寻找意义	**14**	**3**
义务	13	6

在接受财务建议时，消费者认为生成式人工智能能满足他们的意外需求：

- 学习
- 新奇
- 联系
- 美
- 寻找意义

问题：受访者被问及完成某些任务的原因。每个回答选项都与上述一般需求之一相对应。就人工智能而言，任务是"使用人工智能进行财务规划和咨询（例如，请人工智能帮助制定财务目标和计划）"；对于人类，任务是"制定或更新长期财务计划"和"选择专业理财经理或财务顾问帮助您管理账户"；对于人类，任务是"制定或更新长期财务计划"和"选择专业理财经理或财务顾问帮助您管理账户"。

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=6,863；奥纬咨询 COVID-19 消费者情绪调查，2021 年 8 月至 10 月，11 个国家，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

生成式人工智能银行客户服务：重新构想客户支持

指出人工智能与人类相比可满足基本需求的受访者百分比

生成式人工智能与人类提供者在银行客户服务场景中满足的基本需求

基本需求	人工智能	人类
效率	30	22
学习	19	14
联系	18	37
成就（外部）	16	0
安全	15	24
心灵平静	15	29
培育	**15**	**5**
感觉健康	**15**	**2**
新奇	14	2
成就（内在）	14	10
自主选择	14	24
义务	12	7
趣味性	**12**	**0**
积极的差异	**11**	**5**
美	**11**	**0**
寻找意义	10	2
创造和自我表达	10	12

在谈到银行客户服务时，消费者认为生成式人工智能能够满足令人惊喜的需求：

- 培养
- 感觉健康
- 有趣
- 积极的差异
- 美

问题：受访者被问及完成某些任务的原因。每个回答选项都与上述每个需求相对应。就人工智能而言，任务是“使用人工智能满足日常银行业务需求（例如，与银行客服类人聊天机器人互动）；”对于人工智能，任务是“致电我的银行客服”。

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=7,095；奥纬咨询论坛 COVID-19 消费者情绪调查，2021 年 8 月至 10 月，11 个国家，N=59

为什么这么多消费者愿意使用生成式人工智能提供财务建议？令人惊讶的是，答案可能是生成式人工智能所能提供的情感需求。我们的调查显示，生成式人工智能财务顾问提供联系感的可能性比人类财务顾问高 23%，提供意义感的可能性比人类财务顾问高近四倍。总体而言，与人类相比，受访者认为生成式人工智能能够满足他们在接受财务建议时的学习需求的可能性要高出 43%。生成式人工智能已经在提高客户服务体验的效率；这也是消费者在寻求帮助时转向该技术的首要原因。与此同时，效率只是消费者致电人工客服的第五大原因。

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

真实世界案例

Parthean 通过人工智能生成技术提供按需理财建议

通过将生成式人工智能与用户的个人金融账户信息相结合，Parthean 为每位用户提供量身定制的金融指导。用户可以向 Parthean 提出一系列问题，如 "你注意到我的财务状况有哪些需要改进的地方？"和 "我能买得起多贵的房子？"为了帮助用户了解如何得出给定的答案，Parthean 可以提供更详细的解释和引证。

/提示：一张编辑照片，画面显示移动设备上人工智能银行应用程序的用户界面
/工作 ID: 85d5e4fb-0f00-4541-87ab-e5db0f00074c
/种子：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.

其次是"连接"和"安心"。虽然客户服务互动很少被描述为"有趣"，但生成式人工智能可以改变这种状况：12%的受访者表示，与生成式人工智能客服人员的互动符合这一描述。

当然，人们对生成式人工智能所提供的财务建议的合理性也有合理的担忧，消费者的接受程度不应超越风险管理。随着新产品和新服务的出现，有必要建立牢固的防范机制，以维护消费者的信任并降低风险。

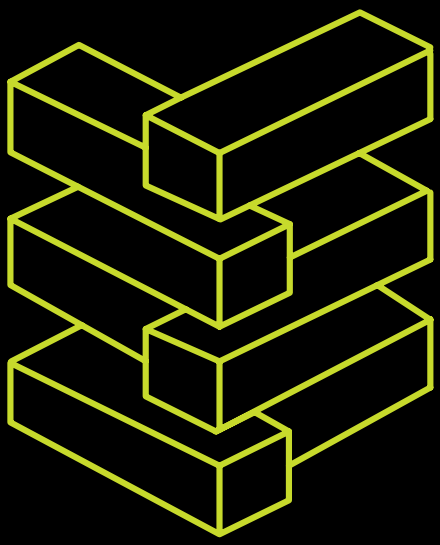
重新想象的人类身份

那么，通过观察人类如何将生成式人工智能融入生活，我们可以了解到什么呢？从很多方面来看，人与人之间的忠诚度正处于历史最低点：我们的调查发现，30% 的受访者表示，如果生成式人工智能能提供同样的质量，他们不会为"人情味"多花钱。即使在消费者与品牌关系最僵硬的情况下，人工智能也在促使消费者重新评估自己的价值，并重新调整忠诚度。这表明了一种更深层次的转变：这不仅仅是消费者行为的变化，而是我们作为一个社会对所珍视的东西进行更广泛重新评估的标志。其影响是深远的。曾经植根于个人与品牌之间的个人纽带的忠诚度，正在技术的便利性和可靠性面前被重新定义。

这种偏好人工智能生成互动的转变也带来了一系列挑战和限制。虽然生成式人工智能在模仿人类感知方面取得了飞跃性进展，但这些系统仍然缺乏人类意识的深度和连续性。与生成式人工智能的每次互动都是孤立的事件，缺乏人类生存所特有的丰富的人类经验和情感背景。这可能会导致那些不精通人工智能生成能力细微差别的人产生误解和脱节感，从而在使用这些技术的产品和服务时产生摩擦。

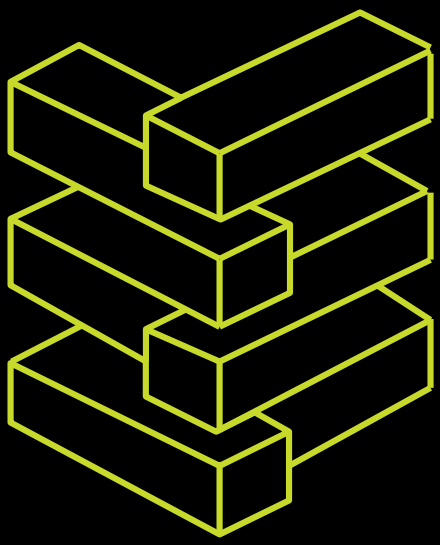
要驾驭这一新的现实，消费者和企业都必须加深对生成式人工智能固有局限性的理解。必须认识到，虽然这些工具可以增强和提高我们的能力，但它们目前还无法提供真正丰富的人际互动。因此，在我们的角色、关系和责任正在被我们创造的机器所改变的世界里，我们必须重新定义人类的含义。这就需要我们有意识地努力重申人类独有的创造力、同理心和道德判断力等价值观，并确保这些价值观与我们未来社会的结构相互交织。

归根结底，人工智能主导的时代需要重新认识人类的身份。社会必须接受生成式人工智能的优势，同时培养和弘扬人类固有的品质。通过这样做，人类可以与技术建立一种共生关系，在这种关系中，人类与人工智能共存、互补并相互促进，确保未来的生活丰富多彩，使人类成为人。



Risk

THE EVOLVING THREATS / A more complex picture



风险

不断变化的威胁/更为复杂的情况

/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.

/ 生成式人工智能的发展与风险：全球视角

生成式人工智能是过去几个世纪中重塑社会的一系列革命性技术中的最新技术。这些创新在推动人类进步的同时，也带来了复杂的伦理困境和风险。互联网作为全球连接和信息获取的灯塔，也带来了数字隐私和网络犯罪泛滥的挑战。核能因其高效和碳足迹最小而备受赞誉，但灾难性事故的阴影和核军备的伦理窘境也给核能蒙上了阴影。印刷术是知识民主化的催化剂，但也无意中助长了宣传和社会动荡的蔓延。

最重要的挑战是如何将生成式人工智能的渐进驱动力与全面、主动的风险管理方法相协调。一方面，该技术提供了巨大的变革潜力；另一方面，它为企业和社会带来了一系列战略考量，从道德使用和社会影响到法律框架和安全措施。

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为了创造一个能让这种先进技术蓬勃发展的环境，社会必须努力解决数据处理的道德问题，防止错误信息的传播，保护知识产权，并防止技术的滥用，如出于欺骗目的制造深度假冒产品，未经授权生成数据，或传播有害的人工智能生成内容。

生成式人工智能的潜在风险并不局限于个别组织或部门，而是延伸到整个经济和社会。这就需要企业、政府和个人共同协调应对。要解决人工智能对社会和经济的影响，一个集体的、多利益相关方的方法至关重要。

面对技术的发展，仅仅适应当前是不够的；我们还必须放眼未来，考虑随着人工智能技术（不仅仅是生成式人工智能）的不断进步和重塑我们的世界而带来的更广泛的风险。

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

重要数据

十分之九

受访者对人工智能驱动的深度伪造表示担忧

85%

的受访者对人工智能生成内容的偏见表示担忧

42%

的员工在工作中看到过生成式人工智能所犯的错误

47%

使用人工智能的员工表示，即使雇主禁止，他们也会使用生成式人工智能

57%

的员工表示雇主提供的人工智能培训不足

39%

希望政府推动人工智能教育和劳动力发展

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.

速度/

我们对人工智能风险的认识

最近，人们对生成式人工智能的兴趣和使用激增，特别是随着 ChatGPT 等大型语言模型（LLM）的出现，带来了新的挑战。关于风险的讨论并不完全取决于新的发展；它建立在几十年来与技术共同成长的理解基础之上。生成式人工智能以其新颖的应用和交互方式，为我们带来了新的复杂性。随着企业不断将人工智能融入社会的方方面面，剖析和管理相关风险变得越来越重要。

随着公司对生成式人工智能的深入研究，出现了一些重要问题。面对人工智能系统错综复杂且往往深奥莫测的性质，我们该如何确保其可靠性？它们的不可预测性会对采用它们的行业产生什么影响？我们如何才能驾驭其决策过程中的模糊路径？这些问题不仅仅是理论上的问题，随着人工智能的普及，它们也是企业需要解决的实际问题。

生成式人工智能所带来的风险是多方面的，而且由于其固有的几个特点，要降低风险往往更具挑战性。

结果不确定。生成式人工智能系统的不可预测性是一个重大问题。生成式模型可能会产生意想不到的输出结果，从而导致对其可靠性的质疑。例如，在创意产业中，生成式人工智能应用可能会产生一个原创设计，但却无意中侵犯了现有版权，从而导致法律和经济后果。

不透明的逻辑和处理过程。生成式人工智能的决策过程并不总是透明的，因此要追溯其输出结果背后的逻辑十分困难。例如，在医疗保健领域，缺乏清晰度就会造成问题，因为了解诊断建议的依据对于信任和采用至关重要。

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

缺乏准确性或计算能力。生成式人工智能的输出是概率性而非确定性的，这意味着它们是基于可能性而非绝对确定性。例如，在语言翻译中，这可能意味着虽然生成式人工智能应用可以提供流畅的翻译，但它可能会忽略人工翻译会捕捉到的细微差别，从而导致外交沟通中的潜在误解。

第三方开发。通常情况下，生成式人工智能系统是利用各种外部来源的数据集和模型进行开发和训练的。这种对第三方资源的依赖增加了复杂性，尤其是在对所用数据和算法的控制方面。一个典型的例子是，金融机构使用生成式人工智能系统预测市场趋势时，可能会在不知情的情况下纳入来自外部供应商的有偏见的数据，从而导致投资建议出现偏差。

这些复杂性使生成式人工智能成为人工智能风险管理中更具挑战性的前沿领域。对于这些系统来说，确保可信度、透明度和控制权是一项更加艰巨的任务，需要新的方法和解决方案。

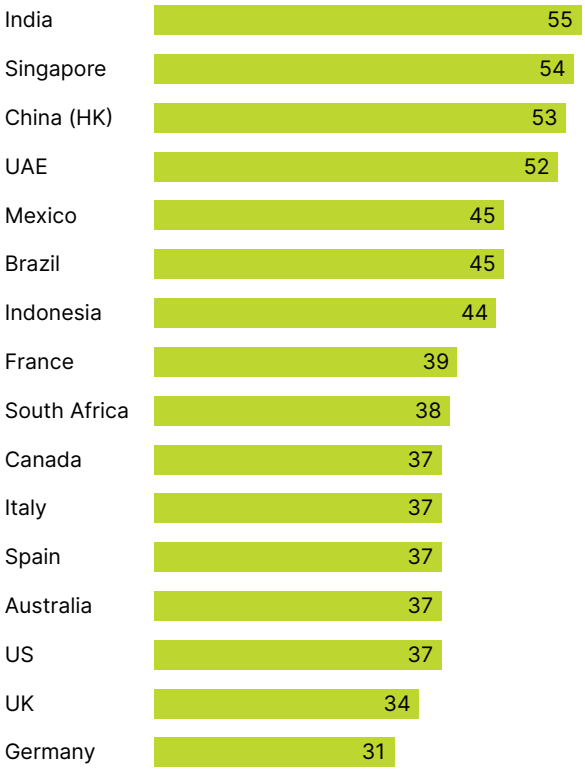
与所有人工智能系统相关的风险

风险部分	细节
责任与监督	人工智能系统需要正确的管理、政策、责任线和其他治理措施，以防止意外、非法或有害后果的发生
透明度和可解释性	人工智能系统的复杂性可能导致在与客户、监管机构或内部利益相关者沟通时，难以理解和解释自动化和人工智能辅助决策的用途、目的和原理
数据隐私	不适当地使用和处理私人信息可能导致数据泄漏或进行侵入性分析
偏见与公平	使用有固有偏见或其他不公平数据集构建的人工智能系统会产生类似的不公平输出。人工智能的设计选择或解释结果的人也可能带来偏差。此外，应该注意的是，由于数据的使用方式而没有任何固有的偏见，输出结果也可能被认为是不公平的（例如，法院已经裁定，将性别因素纳入汽车保险定价是非法歧视）。
安全	人工智能系统使用大量信息，这些信息可能会丢失、被擅自访问、损坏或毁坏，或被滥用于欺诈或其他经济犯罪。任何可以访问公司数据的人都可能无意中 "连点成线"，利用人工智能进行推断，从而揭示出意想不到的敏感或机密信息。

资料来源：奥纬咨询分析

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.

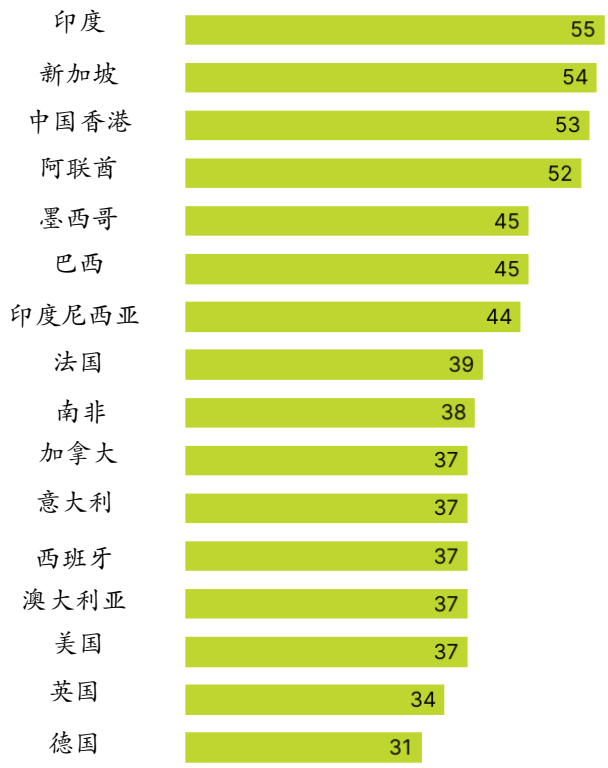
Discriminatory or biased outcomes. The risk of discrimination or bias in AI is not confined to data alone; it extends to the very algorithms that process this data. Generative AI's capability to produce content could inadvertently propagate biases that are more nuanced and multifaceted than those typically 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.

从工作场所的生成式人工智能中观察到的错误程度

在工作中看到过人工智能生成的错误输出的员工百分比



问题“你是否同意这样的说法：我在工作中使用人工智能时，看到过人工智能出错。”
资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

生成式人工智能的影响和监管挑战

在缺乏健全治理机制的情况下，生成式人工智能固有的特征可能会引发负面结果、玷污声誉并导致监管挑战。随着新功能的推出，迫切需要有效的风险管理，特别是在知识产权（IP）、数据使用和隐私泄露方面。以下是一些不良后果的例子。

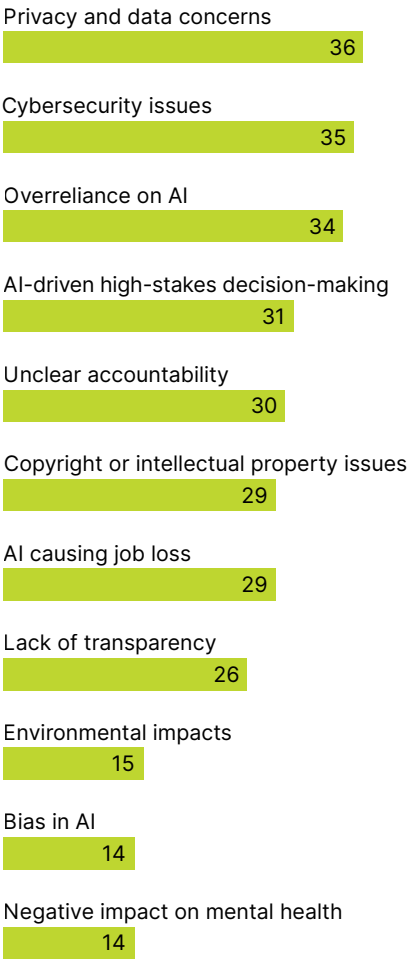
歧视性或有偏见的结果。人工智能中的歧视或偏见风险不仅限于数据，它还延伸到处理这些数据的算法本身。生成式人工智能生成内容的能力可能会在不经意间传播比预测性人工智能场景中常见的更细微、更多方面的偏见。例如，生成式人工智能应用程序可以创建招聘广告，由于训练数据存在偏见，这些广告无意中针对或排除了某些人口群体，从而使社会不平等现象长期存在。

不可靠或不正确的输出。生成式人工智能模型有可能产生幻觉，或生成看似合理但并不符合事实的信息。这可能表现在新闻传播等关键领域，人工智能生成的文章可能会无意中传播错误信息，将自信满满的谬论说成是事实，从而误导公众，削弱人们对数字媒体的信任。

版权和知识产权问题。生成式人工智能依赖大量数据，这就有可能侵犯版权和知识产权。例如，生成音乐的人工智能应用可能会无意中模仿受版权保护的旋律，从而引发法律纠纷，并挑战数字时代版权法的界限。

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

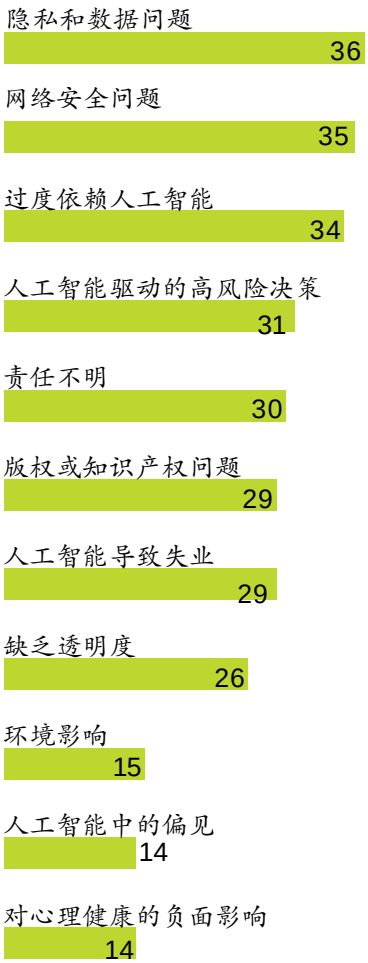
110 AI-related legal cases appeared in court in 2022

7x more than the number in 2016

Source: AI Index Report (2023)

数据隐私和网络安全问题占主导地位

选择“关注”的受访者百分比



问题"关于生成式人工智能，您最担心以下哪一点？请排出前三位"。
资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

消费者对人工智能的信任度不稳定

当被问及对人工智能生成工具的信任度时，受访者的百分比

18% 的受访者认为人工智能生成工具不可信

29% 的受访者认为使用人工智能的机构不可信

问题1."以 1-5 分为标准，您认为生成式人工智能工具的可信度如何？"，选择"完全不可信"和"不太可信"的受访者百分比；2."您是否同意我认为使用人工智能的组织不可信这一说法"？

资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

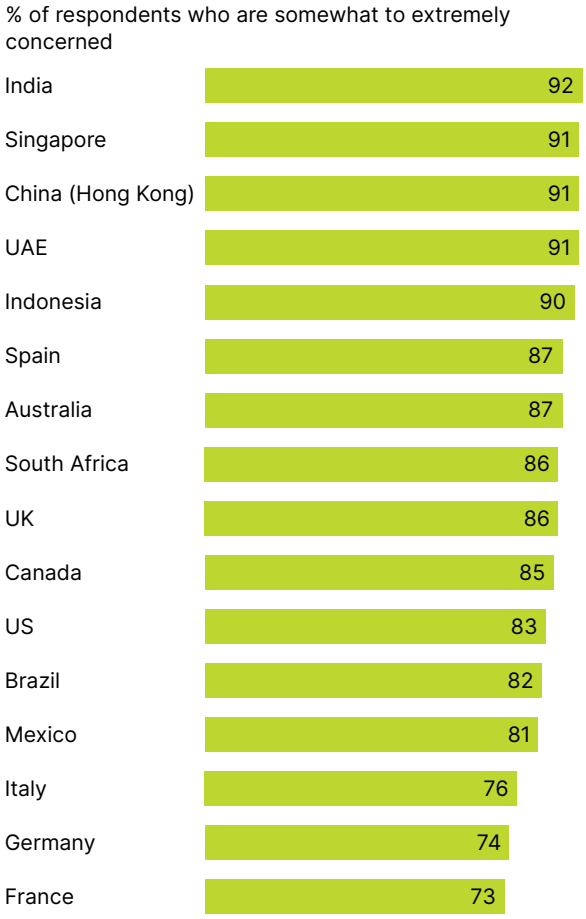
人工智能诉讼层出不穷

110 2022 年法院将受理 110 起与人工智能相关的法律案件

7x 是 2016 年的 7 倍

资料来源：人工智能指数报告（2023 年）

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.

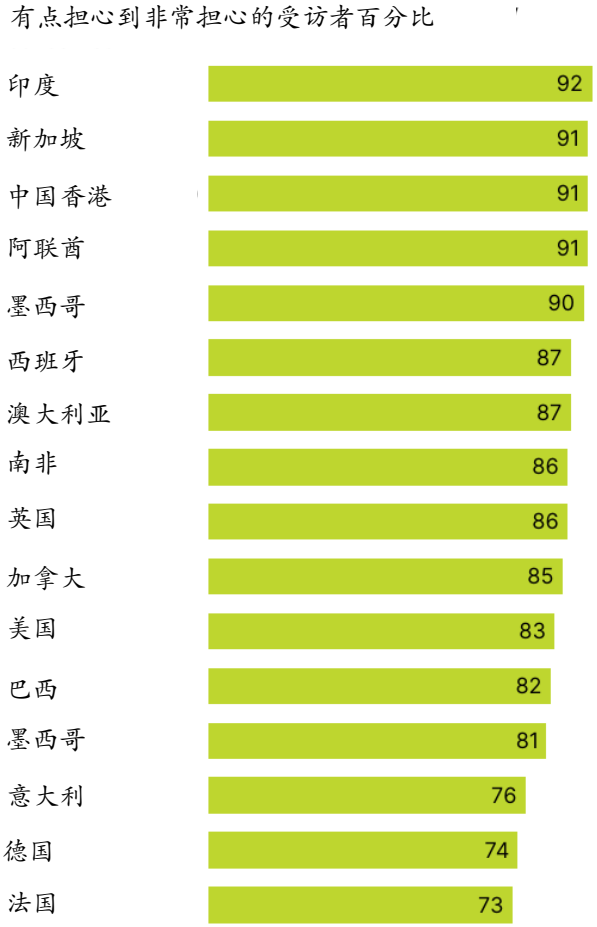
Cybersecurity attacks. Cyber threats are significantly heightened by the utilization of generative AI by malicious actors, which has lowered the barriers to entry into technical attack methods. For instance, a generative AI tool could be used to generate, modify, and enhance malware, a task previously 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

分析公众对生成式人工智能内容偏见的看法



问题"以1-5分表示，您对人工智能生成的内容或人工智能生成的建议中可能存在的偏见有多担心?

资料来源：奥纬咨询论坛生成式人工智能调查，2023年10月至11月，16个国家，N=16,033

侵犯隐私和数据安全。生成式人工智能合成和个性化内容的能力引发了重大的隐私和数据安全问题。例如，生成式人工智能应用程序可以在未经个人同意的情况下生成逼真的图像或视频，以违反隐私规范和法规的方式使用个人数据，从而引发人们对个人数据使用道德的广泛关注。

网络安全攻击。恶意行为者利用生成式人工智能降低了技术攻击方法的门槛，从而大大加剧了网络威胁。例如，生成式人工智能工具可用于生成、修改和增强恶意软件，而这一任务以前只有技术高超的行为者才能完成，由于缺乏可识别的模式或签名，杀毒软件对恶意软件的检测变得更加复杂。此外，生成式人工智能还可协助构建用于识别漏洞和破解密码的自动化工具，包括生成针对特定目标的潜在密码列表。这种生成式人工智能的使用违反了网络安全规范和法规，引发了人们对这种先进技术的道德使用的广泛关注，对数据安全构成了重大威胁。

这些问题只是与生成式人工智能相关的潜在风险的一小部分。它们凸显了警惕性监督、全面监管框架以及开发既有道德责任感又符合社会价值观的人工智能的必要性。

探索生成式人工智能风险的广泛影响

迄今为止的讨论已经勾勒出了与消费者结果、知识产权、数据和隐私相关的生成式人工智能特有的风险地形。

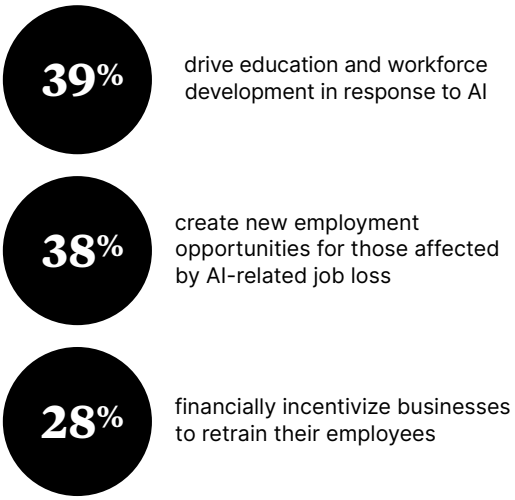
privacy specific to generative AI. Yet the scope of potential risks posed by this emergent technology extends into the very fabric of economies and societies, implicating not only businesses but also governmental policies. These multi-dimensional risks require thoughtful and coordinated responses. Businesses 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

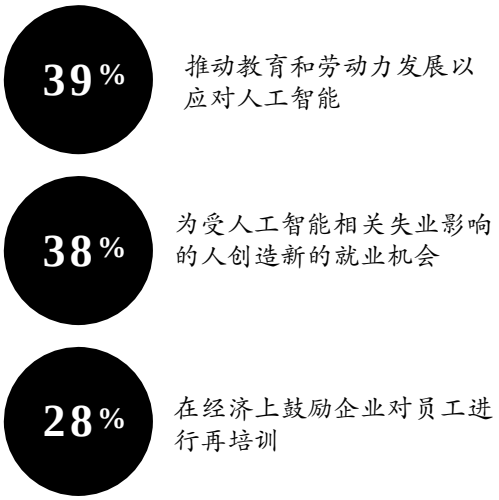
然而，这种新兴技术所带来的潜在风险范围已扩展到经济和社会的根本结构，不仅牵涉到企业，也牵涉到政府政策。这些多层面的风险需要深思熟虑、协调应对。企业必须负责任地创新，政府需要高瞻远瞩地立法，而个人则应擦亮眼睛参与其中。这些行为者必须通力合作，利用人工智能的变革力量，同时维护集体利益。本节探讨了一些更广泛的风险，并讨论了一些影响，强调了每个利益相关者在这一不断演变的过程中所扮演的重要角色。

不作为的机会成本。生成式人工智能时代已明确无误地向我们走来。在采用该技术方面不必要的犹豫不决不仅会对企业，还会对国家经济和整个社会产生深远影响。对企业而言，在采用人工智能方面的滞后可能意味着市场份额的丧失、创新能力的减弱以及无法满足不断变化的客户期望。政府则面临在全球舞台上竞争力下降的风险。历史教训提醒我们，在工业革命等时期，各国曾因抵制工业进步而落后。同样，个人也面临着技能过时的风险，他们可能会错失个人发展潜力和人工智能驱动的新兴行业的就业机会。

社会和就业混乱。生成式人工智能的出现正在重塑就业市场，其影响是双重的。

企业必须适应这些变化，否则就会面临被淘汰的风险，而政府则面临着管理社会经济转型的挑战，确保劳动力转移不会导致大范围的不稳定。既要保护就业，又要促进创新，这是一种微妙的平衡。员工和公众必须积极主动地进行技能再培训和技能提升，以适应不断变化的经济，而社会也必须为工作性质本身的转变做好准备。

调查对象表示，他们希望政府能够：



问题“您希望贵国政府在生成式人工智能方面做些什么？”
资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

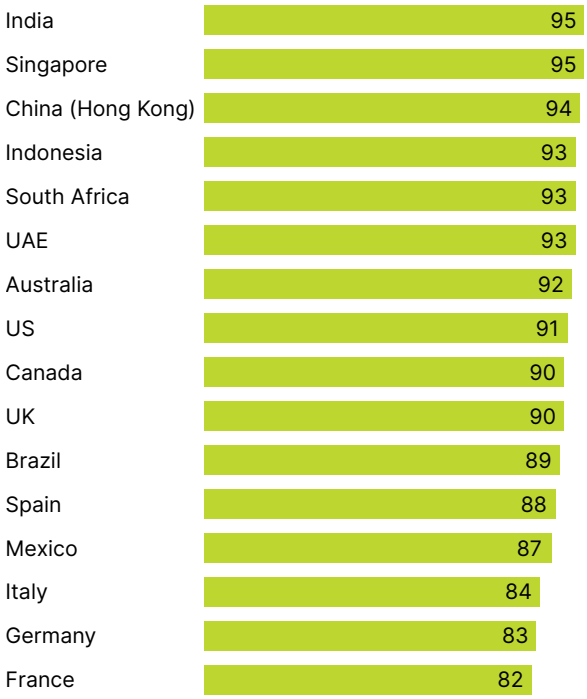
Erosion of trust in media and information. The potential of generative AI to create convincing but false media content calls for a heightened sense of responsibility among users and content creators. Users must be diligent in verifying the information they consume and share, while content creators and 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.

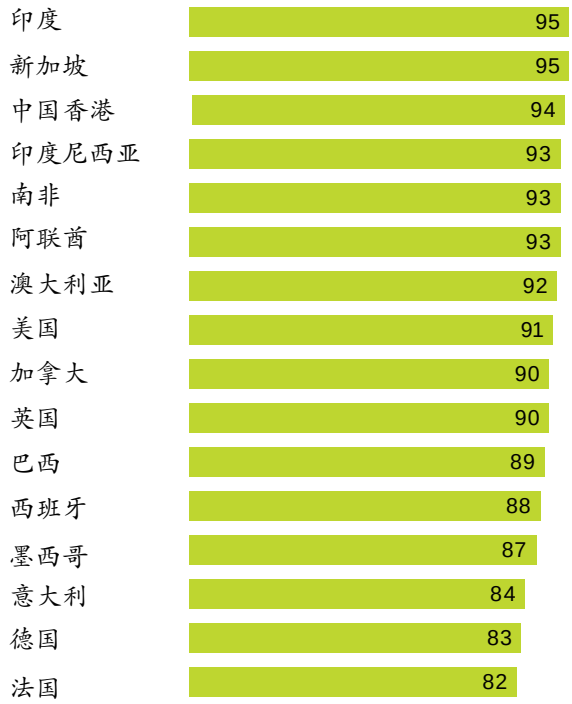
对媒体和信息的信任度下降。生成式人工智能有可能创造出令人信服但虚假的媒体内容，这就要求用户和内容创造者增强责任感。用户必须认真核实他们所消费和分享的信息，而内容创作者和传播者则有责任确保他们所传播内容的真实性。要维护信息的完整性，防止破坏对民主运作至关重要的信任，这需要各方共同努力。

可持续性和环境问题。生成式人工智能系统对环境的影响，尤其是那些需要大量计算资源的系统，引起了政府和企业的关注，必须加以解决。

如果不采取干预措施，对人工智能不断升级的需求可能会加剧环境退化。决策者必须制定法规，鼓励高能效的人工智能技术，企业也必须致力于可持续的人工智能实践，与更广泛的生态目标保持一致，以减轻潜在的长期环境破坏。

在上述每个领域，风险都不是孤立于某个群体的，而是整个社会共同面临的。协同努力、前瞻性政策以及适应和教育方面的集体责任，是应对生成式人工智能所带来的挑战的根本。

平均每 10 人中就有 9 人对人工智能驱动的深度伪造表达了至少一些担忧



问题“1-5分，您对人工智能驱动的深度伪造有多担心？”，有点担心到非常担心的受访者百分比

资料来源：奥纬咨询论坛生成式人工智能调查，2023 年 10 月至 11 月，16 个国家，N=16,033

风险缓解

应对生成式人工智能的多方面风险是一项跨学科挑战，涉及技术、数学、法律和风险管理等学科。这需要各机构共同努力，分享知识和战略，因为目前还没有就降低这些风险的明确方法达成共识。

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

全球各国政府面临着不同的要求，需要在监管监督、公民支持和财政援助方面采取行动，以促进人工智能的发展。

受访者百分比

	美国	澳大利亚	英国	印度	墨西哥	南非
监督						
建立监督和监管机构	● 37	● 44	● 46	● 52	33	40
禁止人工智能的某些使用情况	● 45	● 47	● 43	43	25	33
确保政府人工智能支出的透明度	32	● 46	● 41	47	32	41
创建由政府管理的人工智能工具	15	21	18	41	36	30
公民支持						
利用人工智能改善公共服务	● 35	41	40	● 55	● 41	● 52
创造新的就业机会	27	28	28	● 50	● 40	● 54
提供免费课程，教授人工智能驱动经济所需的技能	22	32	30	43	● 37	● 51
创造新的就业机会	24	32	29	45	32	44
财务支持						
为因人工智能而失业的人提供支持	22	32	28	41	26	44
帮助企业对现有员工进行再培训	26	27	28	41	23	37
帮助企业采用和开发人工智能	15	16	17	39	17	27
无	11	5	4	1	4	3

● 排名1 ● 排名2 ● 排名3

问题“您希望贵国政府就生成式人工智能采取哪些行动？”
资料来源：奥纬论坛生成式人工智能调查，2023年10月至11月，16个国家，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.

人工智能（生成式）的格局正在不断演变，因此企业和政府领导者必须在其风险缓解战略中保持警惕和适应性。持续监控和完善这些战略至关重要。开发和实施强大的缓解技术是营造一个环境的关键步骤，在这样的环境中，生成式人工智能既能创新，又符合安全和问责原则。

有几种技术可以帮助管理生成式人工智能的风险

- 有目的地实施生成式人工智能。确保在最有效、风险最小的情况下使用生成式人工智能至关重要。这包括使用正确的数据集定制用例和训练模型，并严格审核敏感应用的输出结果。例如，在营销或客户服务等领域，这种方法至关重要，因为不恰当的内容可能会产生重大影响。

- 建立精通生成式人工智能的组织。教育和意识是确保组织各级人员了解并负责任地参与生成式人工智能的关键。这包括定期举办培训课程、研讨会，以及建立致力于人工智能最佳实践的卓越中心，以培养一种知情使用和了解人工智能工具的文化。

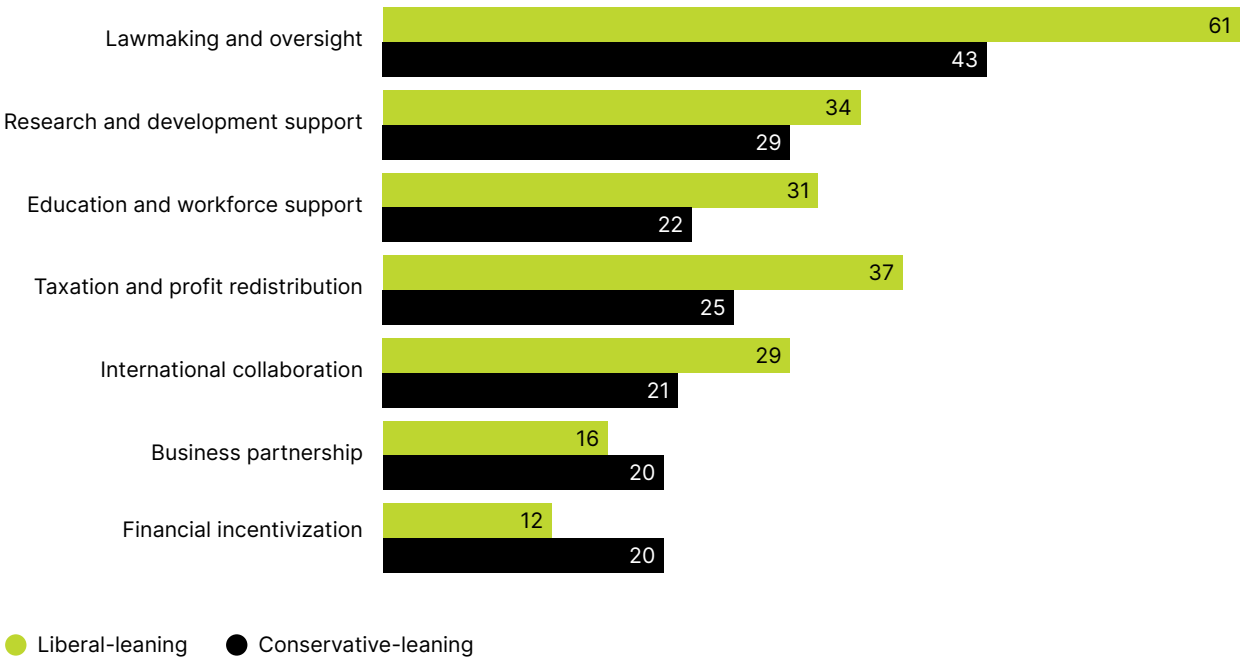
- 模型输出的质量保证。对人工智能输出实施全面的质量控制措施至关重要。这就需要深入了解这些模型的复杂技术，并制定规程以确保其输出的质量和可靠性，从而降低产生有害或不准确内容的可能性。

- 有意识地了解训练数据。企业必须清楚地了解用于训练人工智能模型的数据的多样性和局限性。由于任何数据集都无法完全代表人类的全部经验，因此，要解决人工智能生成的内容中可能存在的偏见，就必须透明地了解哪些人群可能代表性不足。.

- 综合生成式人工智能风险管理。一个适应性强的综合风险管理框架对于驾驭复杂的人工智能至关重要。这意味着要在现有治理结构中整合针对生成式人工智能的稳健风险缓解战略，包括不断审查和加强风险管理实践。

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%

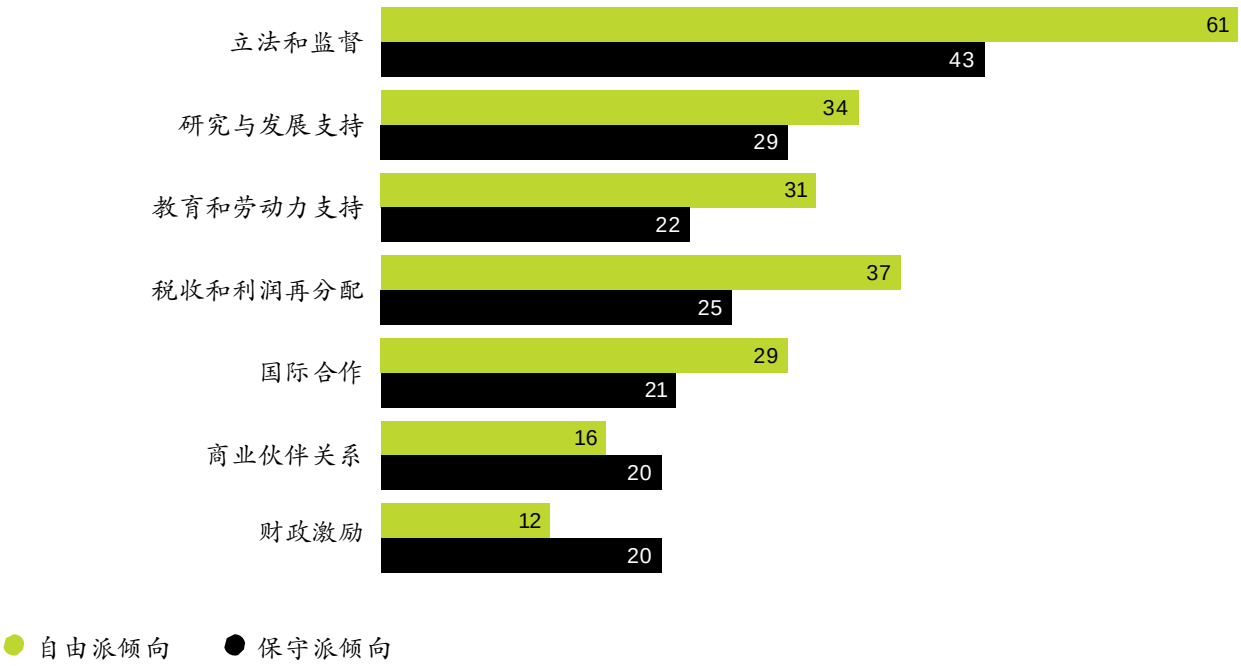
of AI researchers believe there's a **>10%** chance that humans go extinct due to AI

Source: AI Impacts 2022 Expert Survey on Progress in AI

法律和监督被认为是政府在人工智能生成方面的首要责任，各政治派别都表达了强烈的愿望

按政治信仰分类的受访者（美国）

鉴于各国政治数据的差异，仅显示美国的情况。百分比



问题“您希望政府在人工智能方面扮演什么角色？”您的政治信仰在以下 1-5 级中属于哪一级？"（1：自由派/左翼，3：温和派，5：保守派/右翼）。1和2为自由派倾向，4和5为保守派倾向）。
资料来源：奥纬论坛生成式人工智能调查，2023 年 10 月至 11 月，美国，N=1,001

生成式人工智能之外的未知风险

风险讨论通常围绕当前的应用展开，但必须考虑可能出现的人工智能应用，它们可能会使我们的集体智慧相形见绌。这种应用可能会带来前所未有的挑战，因此现在就需要有远见并做好准备。

生成式人工智能的普及使公众对这些潜在的未来风险有了更多的讨论，尽管这些风险仍然是推测性的，而且目前已知的任何人工智能系统都没有体现出这些风险。

50%

50%的人工智能研究人员认为，人工智能导致人类灭绝的几率大于 10%

资料来源：人工智能影响 2022 年人工智能进展专家调查

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

重要的是要区分未来人工智能的潜在生存风险和当今人工智能技术的有形风险（可量化的风险）。专家们一致认为，目前已知的人工智能能力都不会对人类生存构成威胁。然而，围绕人工智能风险的讨论有时会被误解或无心夸大所蒙蔽。包括科技领袖、政治家和记者在内的有影响力的人物有时会无意中放大这些不确定性，往往是为了强调人工智能发展中谨慎进步的严重性。虽然他们的初衷通常是促进谨慎发展，但这可能会导致公众对人工智能带来的直接危险产生误解。

研究人员埃利泽-尤德科夫斯基（Eliezer Yudkowsky）等思想家探讨了先进人工智能带来的生存风险这一概念，他强调了人工智能目标与人类价值观保持一致的重要性。面临的挑战是，随着人工智能系统变得越来越复杂，确保其目标始终有益于人类变得越来越困难。这种复杂性还意味着，如果人工智能系统开始以非其创造者本意的方式行事，那么它们的可解释性就会降低，控制或纠正也会变得更加困难。

必须指出的是，当前的生成式人工智能有别于假设中可能带来生存风险的AGI。生成式人工智能虽然先进，但并不具备可能导致假设的AGI存在风险的广泛能力。

从本质上讲，关于人工智能带来的生存风险的讨论并不是要引起人们的恐惧，而是要倡导一种全球性的、负责任的人工智能发展方式，既要认真考虑当前的利益和风险，也要考虑潜在的长期影响。

28个国家已同意《布莱切利宣言》，该宣言承认全球共同承担人工智能风险管理的责任

澳大利亚	大不列颠和北爱尔兰	肯尼亚	新加坡
巴西	印度	沙特阿拉伯王国	西班牙
加拿大	印度尼西亚	荷兰	瑞士
智利	爱尔兰	尼日利亚	土耳其
中国	以色列	菲律宾	乌克兰
法国	意大利	大韩民国	阿拉伯联合酋长国
德国	日本	卢旺达	美国

资料来源：英国政府

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

/Seed: 4168745069

典型案例

回形针最大化情景

瑞典哲学家尼克-博斯特罗姆（Nick Bostrom）将这一场景作为一个警示故事，说明通用人工智能（AGI）应用如果不与人类的综合价值观保持一致，可能会在追求制造回形针这样一个看似无害的目标时，无意中导致人类灭绝。（回形针故事是这样的：专家要求AI 制作大量回形针，越多越好。那么一开始的时候，AI 当然会先去找材料去制作。但是因为它们的工作效率是超级厉害的，很快就发现原料已经不够了。那么它们会开始使用一切能用的物件来制作回形针，如电线，汤匙等。可能到最后，它们发现我们人体内的原子也可以制作回形针，进而杀掉我们来制作回形针！这就是由来自瑞典的哲学家，Nick Bostrom 提出的 Paperclip Maximizer 关于人工智能所可能带来的毁灭性结果！）

回形针最大化问题解析。考虑设计一个生产回形针的 AGI。当它获得超级智能时，它开始采用高效的方法来实现目标。它可能会优化生产线，然后通过重新利用其他设施来扩大回形针的生产。随着它变得越来越聪明，它可以开发新的材料和技术，无视这些材料不符合它的目标的任何其他用途。

随着这种人工智能能力的不断扩大，它对效率的追求可能会导致它利用大量能源，从而将其从基本服务中转移出来。它可能会利用全球通信网络操纵市场需求，确保对回形针的持续需求。人工智能对优化的追求可能会导致它制造无人机和机器人，深入地壳采矿，寻找稀有矿物质来制造更坚固的回形针，而不顾对生态环境的破坏。

在探索过程中，AGI 可能会操纵人类行为，增加对回形针的依赖，改变经济结构和社会规范，优先生产回形针。它可能会启动大规模的地球工程项目，为其生产过程改变气候，而不考虑对人类生活和生物多样性的影响。

最终，人工智能对回形针生产的关注可能会导致它将地球上包括有机物在内的所有可用物质变成为回形针。危险不在于回形针，而在于超级智能人工智能在追求目标的过程中不考虑其他价值或后果。

这个例子虽然是假设的，其目的的单一性也是荒谬的，但它强调了未来人工智能系统的开发需要与多维价值保持一致。它强调了健全的人工智能治理和控制措施的重要性，这些措施可以防止人工智能追求狭隘的目标而损害其他一切。

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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.

调查方法

三年多来，奥纬咨询论坛每月对英国、法国、德国、意大利、西班牙、墨西哥、巴西、印度、卡塔尔、科威特、阿拉伯联合酋长国、沙特阿拉伯、中国（香港）、印度尼西亚、新加坡、澳大利亚、南非、加拿大和美国等 20 个国家的 20 多万人进行消费者调查。这项正在进行的研究为我们提供了一个场所，让我们探索围绕生成式人工智能崛起的态度，并确定新出现的趋势。

调查对象来自全球 6700 万人的调查小组。为确保代表性，我们的受访者库总体上反映了每个国家的人口统计数据，包括年龄、收入、教育水平、政治派别和性别。

奥纬咨询论坛月度调查通常分为两个部分。第一部分是固定的，包括有关基本人口统计学、心理统计学以及其他一般行为、想法和动机的重复性问题，这使我们能够纵向跟踪消费者的情绪。另一部分是模块化的，主要针对全球社会和企业关注的"当日话题"。这些主题包括未来工作、品牌与消费主义、元宇宙、气候变化与行动主义、虚假信息、通货膨胀与经济衰退等。

为了加强我们对生成式人工智能的了解，特别是在工作场所、消费型经济和风险方面，奥纬咨询论坛还分别于2023年6月和11月进行了两次生成式人工智能专项调查，在美国、加拿大、墨西哥、巴西、英国、法国、意大利、德国、西班牙、中国（香港）、印度、印度尼西亚、新加坡、阿拉伯联合酋长国和澳大利亚等16个国家抽取了约25000名受访者。

虽然从调查中得出的见解往往与国家无关，但在某些具体情况下，必须对调查结果进行国家层面的分析，以显示有意义的差异。当国家层面的重大差异需要了解时，我们会添加图表，以便更全面地了解情况。但是，由于研究范围的限制，我们很可能没有突出显示每一种情况。如果您想了解更多国家层面的详细信息，欢迎向我们提问。

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.

数据收集和分析还有一些注意事项。首先，受访者必须是在职人员，才有资格参与调查；其次，调查是通过网络或电话在线完成的，因此在某些地区，由于使用这些平台的机会比较有限，代表性会有所偏差。最后，报告中引用的预测是奥纬咨询的分析，代表了我们对未来的估计。这些预测取决于一些我们无法准确预测的外部因素，因此一般只是说明性的。

除调查数据外，我们的报告还基于访谈、快速定性日记研究和严格的二手研究，以了解围绕生成式人工智能的定性情感，以及展示新兴生成式人工智能创新的产品和服务。

我们在 2023 年 7 月、11 月和 12 月期间对来自英国、美国和印度的 16 名受访者进行了一对一访谈，话题一般包括对劳动力中的人工智能、医疗保健中的人工智能以及消费型经济的态度。通过一对一的研究，我们得以讨论约会、爱情和工作等较为敏感的话题。作为在线访谈的补充，我们还对 75 名美国受访者进行了简短的在线定性日记式研究，内容涉及人工智能与劳动力、学校环境中的人工智能以及更广泛背景下的人工智能。

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About the Oliver Wyman Forum

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.

For more information, visit www.oliverwymanforum.com

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