



Generative AI

A new chapter begins

September 2023



Generative AI

A new chapter begins

Generative AI has enthralled tens of millions of people in the UK over the last year. This is a remarkable achievement for a technology with almost no awareness in mid-2022. Within seven months of the launch of the most commonly known Generative AI tools, half of UK respondents were aware of it (52 per cent), a quarter had used it (26 per cent) and about ten per cent were frequent (weekly or more) users. Four million people had used it for work and a similar number had used it for educational purposes.

Generative AI's usage as of mid-2023 is mostly via text generation tools such as ChatGPT, Google Bard and Bing Chat, and image generation applications, such as DALL·E, Midjourney, Stable Diffusion and Adobe Firefly. In response to a few words in a prompt bar, generative AI tools can create a: management summary, a one-thousand-word essay, software code, a legal document, a high-quality image, a painting in the style of a renowned artist, a poem with every line beginning with a 'p', and much, much more. All served up within a few seconds.

It can feel magical. A first experience of generative AI is for many akin to the 'honeymoon period' that characterises the start of a relationship,¹ at which point blemishes may be overlooked, and positives boosted. But this phase is only temporary: pragmatism soon inexorably asserts itself, especially in a business context.

In the UK market, we are arguably nearing the end of the honeymoon period and entering a focus on productivity. There is a significant foundation of those that have used generative AI, but, a large proportion of users have only dabbled with generative AI, and dropped it after a few tries. For generative AI – or indeed *any* successful technology – to thrive, tools need to be sufficiently useful to warrant repeat behaviour.

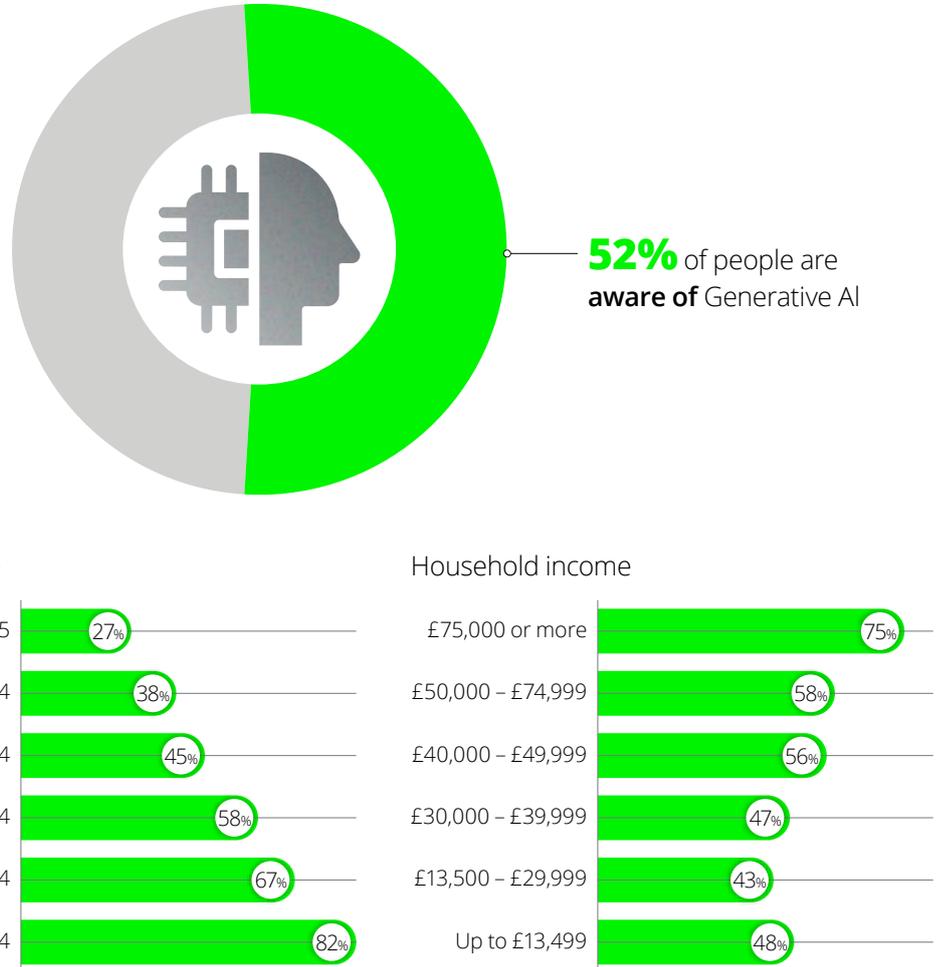
Generative AI has been used by 13 million people (or 26 per cent) in the UK

As with most technologies that burst into the public's consciousness, Generative AI, whilst novel, is not brand new: a crucial component, the transformer, was introduced six years ago.² What has inflected is ease of use. The user interface has been simplified – for example via integration into existing tools such as search engines, or graphics and editing tools – such that most people with connectivity and a device (99 per cent of our sample) could readily access large language models and diffusion models. Newer tools like ChatGPT, Bard and Firefly offer a familiar-looking, easy to use interface, and do not require expert knowledge to use. Sign-up takes minutes and most tools do not (yet) require payment, despite significant underlying costs.

Across the UK, about half (52 per cent) are aware of a Generative AI tool (see Figure 1). As with most new technologies, awareness skews higher among the younger, those on higher incomes and males. Half of those who are aware of generative AI have used it, equal to 26 per cent of respondents. This is an impressive proportion given that very few of this group would have used any such tools prior to November 2022.

Figure 1. Half of people (52%) in the UK are aware of Generative AI

Question asked: Which Generative AI tools have you heard of? [List, Another Generative AI Tool]



Source: Deloitte Digital Consumer Trends 2023, UK

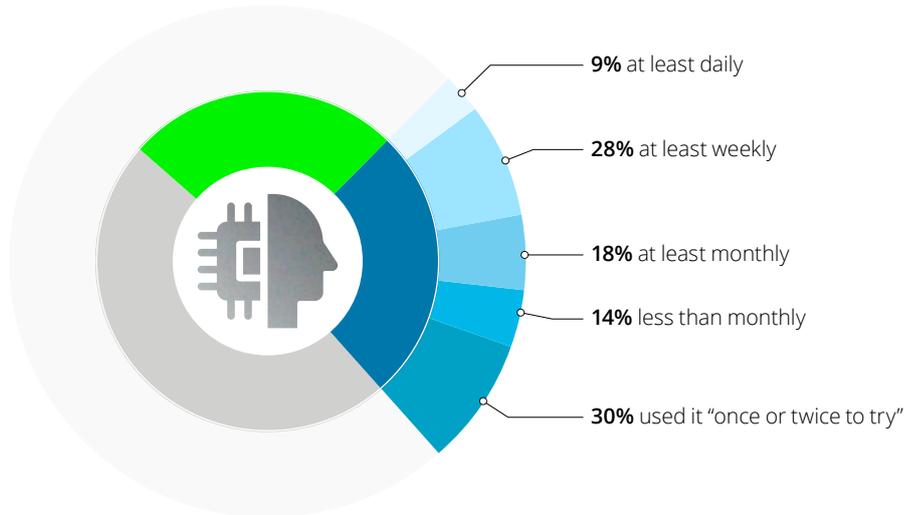
Weighted base: All respondents aged 16-75 years, (4,150); Age 16-24 (576), 25-34 (754), 35-44 (722), 45-54 (735), 55-64 (716), 65-75 (647); Household Income up to £13,499 (534), £13,500-£29,999 (1041), £30,000-£39,999 (526), £40,000-£49,999 (492), £50,000-£74,999 (573), £75,000 or more (473), excludes those who did not prefer to answer (386)

Of the 26 per cent who have used Generative AI (see Figure 2), 37 per cent do so at least weekly, but 14 per cent use it less than monthly, and, notably 30 per cent have only used it “once or twice to try”. A further 14 per cent have used less than monthly, which implies less than 10 uses ever at the time the survey was fielded in May and June of this year. The high proportion of regular users – almost two out of five – is a positive. But the 30 per cent who have used just once or twice is an indication that the tool remains nascent and is not yet of utility to all users.

Figure 2. Around a third (37%) of Generative AI users do so at least weekly

Question asked: [List, Another Generative AI Tool]; Which of the following best describes your use?

26% of all people have **used** Generative AI



● Used Gen AI (26%) ● Aware of, but never used Gen AI* (26%) ● Not aware of Gen AI* (48%)

Source: Deloitte Digital Consumer Trends 2023, UK

Weighted base: All respondents aged 16-75 years (4,150), who are aware of any Gen AI tool (2,178), used Gen AI (1,096)

* Includes respondents who selected "Don't Know", to awareness (4%), and usage (1%)

Four million people have used Generative AI for work

A major driver of generative AI's allure in its early days with its potential to automate cerebral processes. Technology has long been used to automate multiple mechanical processes, from chopping up vegetables to moving objects up and down buildings at speed. Technology can simplify relatively straightforward cerebral tasks, from calculation to basic voice recognition. However, the ability to create text or image-based outputs – that could take hours of work – in response to a few words of prompt is disruptive and deeply alluring.

Generative AI's promise is to upend and automate multiple aspects of workflow, including, among many examples: creating marketing copy (including social prompts),³ editing legal contracts,⁴ coding software,⁵ or acting as a customer touchpoint, for example within a chatbot.⁶

Generative AI is nascent, fallible and there are still questions about ethics. As such it has been banned from being a co-author in academic journals,⁷ hallucinated case law that does not exist,⁸ used to cheat in examinations,⁹ used to write malware,¹⁰ and prohibited by many organizations.¹¹

Even so, 32 per cent of respondents report having used Generative AI for work – equivalent to 4 million people in the UK (see Figure 3). Most likely, much of this use whilst well-intentioned and unsanctioned, may have taken place without adequate governance, in companies which might not yet have formulated an internal policy on usage.¹² Fewer still may have a code of conduct for suppliers.¹³ There are likely to be millions of generative AI outputs created by workers in the UK that are already in the public domain.

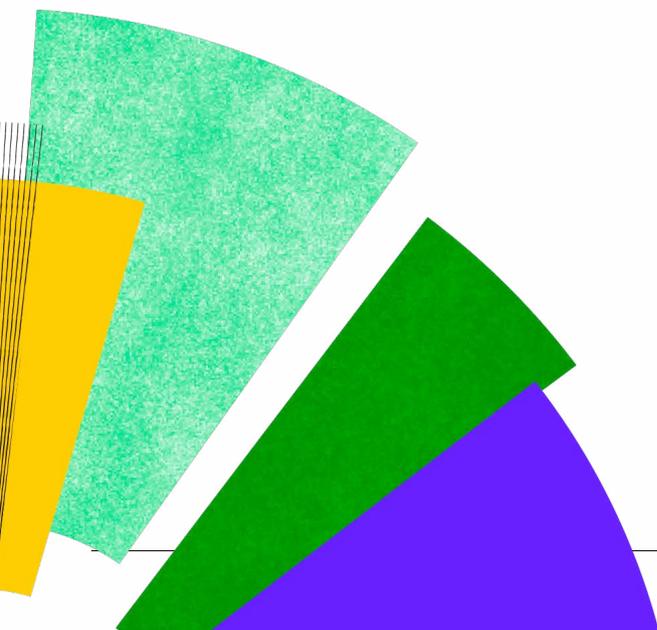
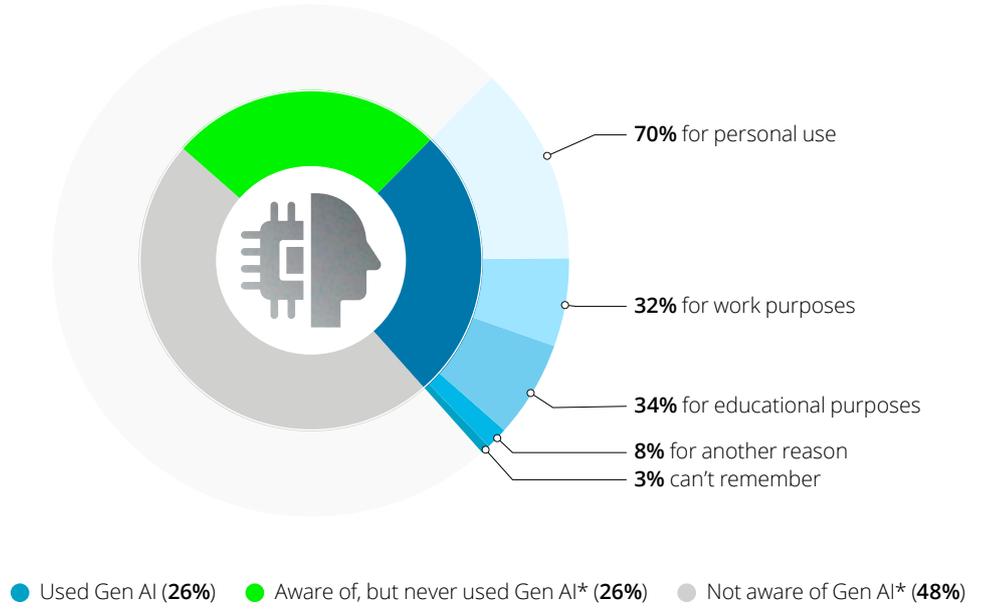


Figure 3. 4 million people in the UK have used Generative AI for work

Question asked: Which of the following purposes have you used any Generative AI for?

8% of all people have used Generative AI **for work**



Source: Deloitte Digital Consumer Trends 2023, UK

Weighted base: All respondents aged 16-75 years (4,150), who are aware of any Gen AI tool (2,178), used Gen AI (1,096)

* Includes respondents who selected "Don't Know", to awareness (4%), and usage (1%)

Consumers who have used Gen AI are *more* ignorant about its flaws

In our survey, respondents had used many types of Generative AI, but were most familiar with Large Language Models, such as GPT-4, the model underpinning ChatGPT, or PaLM, the model underpinning Bard. LLMs work by estimating the probability that words will appear in a certain sequence.¹⁴ However, these models can make the wrong prediction, an output also known as ‘hallucination’. LLMs can serve-up sentences which are both factually incorrect and plausible to some readers. Users may lack the context or knowledge to be able to readily identify an impeccably presented (in terms of format, spelling and grammar) but wholly inaccurate response.

Our research found that a significant proportion of respondents were unaware of potential inaccuracies. Of those who have heard of Generative AI, 28 per cent believe that it is always factually accurate, and 26 per cent believe it to be unbiased. However, among those that have used it, more people think it is factually correct (43 per cent) and more (38 per cent) think it unbiased (see Figure 4). Among those who have used Generative AI for work, over half (55 per cent) believe it is *always* factually accurate. A significant number of people using Generative AI for work may inadvertently be creating outputs that include errors.

There are multiple potential approaches to mitigating the impacts of hallucination. Using plug-ins or private data sets is another. Over the coming months, a lot of the focus on generative AI may be on managing risks, including optimising for accuracy. (see our report [“The role of enterprise risk management in generative AI”](#)).

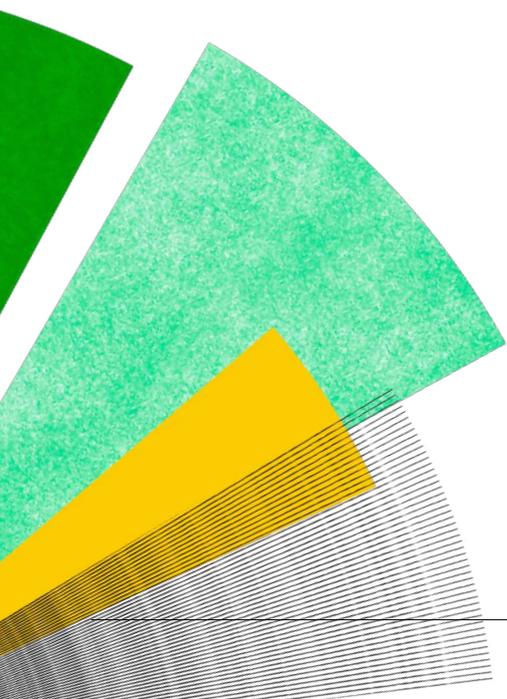
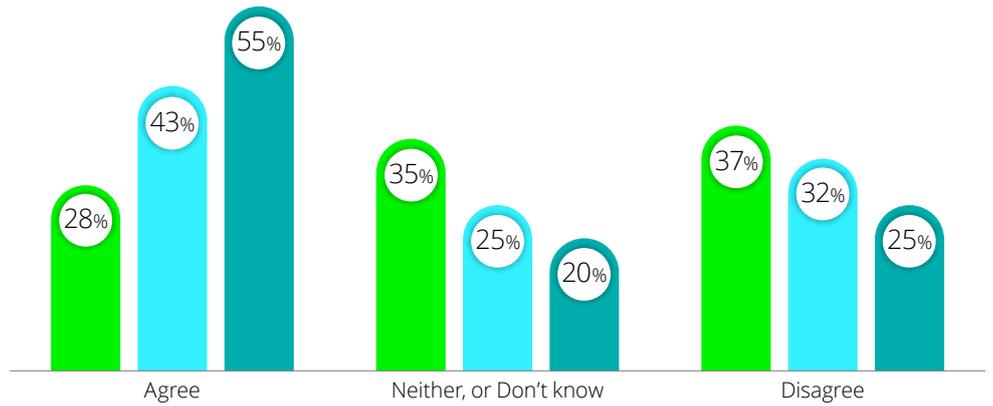


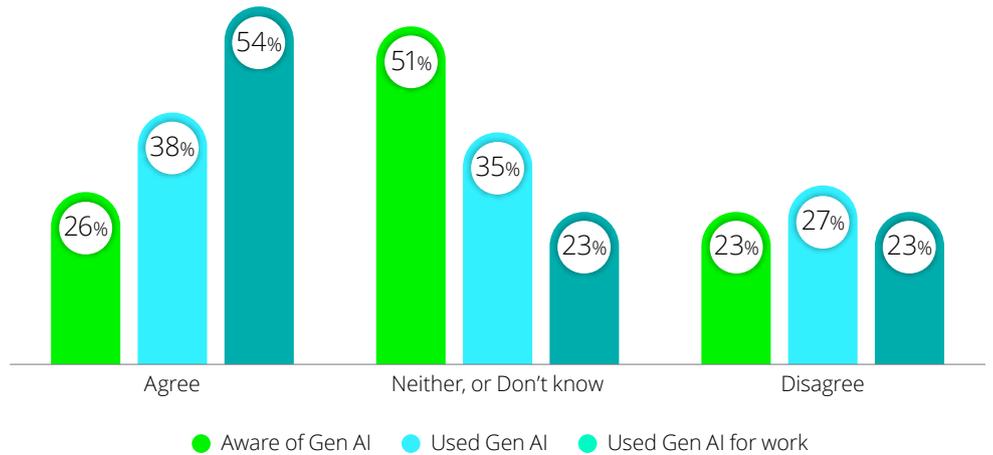
Figure 4. Respondents who have used Generative AI are more likely to be unaware of its flaws

Question asked: To what extent do you agree with the following statements? “Generative AI always produces factually accurate responses”; “Generative AI responses are unbiased”

Generative AI always produces **factually accurate** responses

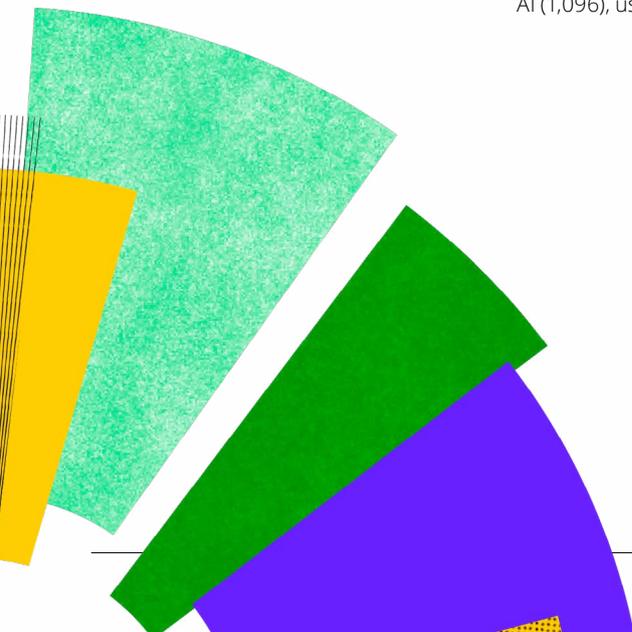


Generative AI responses are **unbiased**



Source: Deloitte Digital Consumer Trends 2023, UK

Weighted base: All respondents aged 16-75 years, who are aware of any Gen AI tool (2,178), used Gen AI (1,096), used Gen AI for work (347)



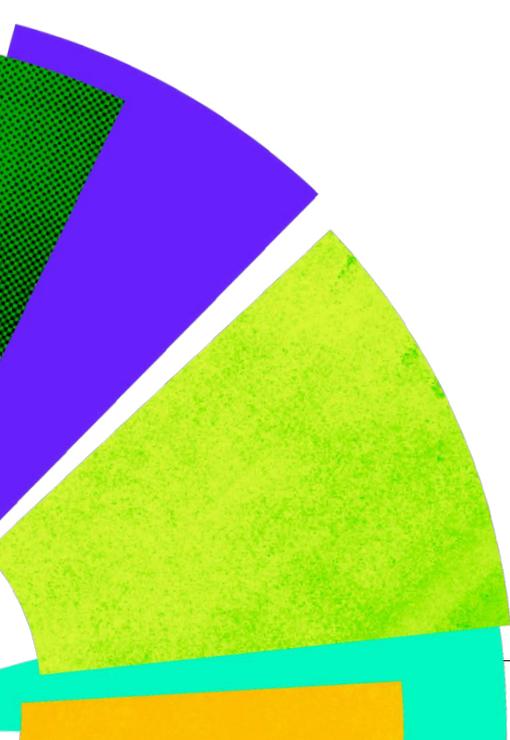
Gen AI and its impact on jobs

As with most emerging technologies, there are fears among the public about the impact on jobs. If, for example, technology can automate the creation of legal contracts or the compilation of software code, will a country's workforce require fewer lawyers and developers?

In our survey, the majority (64 per cent) who have heard of Generative AI believe it will reduce the number of jobs available. Almost half (48 per cent) are concerned that it will replace some of their role in the workplace.

In the history of technology – which in some aspects the history of economic change over the last 200 years – job creation has in the long run been more likely than job destruction.¹⁵ In the short run however, some job roles will likely disappear, and historically retraining affected workers can take years or even decades.

Several academic papers have claimed a link between Generative AI and productivity, but these are typically based on lab experiments, in which test subjects are given specified tasks to complete in a controlled environment.¹⁶ In the real world, jobs are more complex and are not based entirely on discrete tasks. Software developers, for example, often spend less than a third of their working hours writing code (this is the part of their role that Generative AI might automate). They need time to check documentation (which explains if code should be written in a certain way), understand how applications are linked, check security concerns, ensure compliance, and more. Good developers do not just create software – they need to deal with the administrative burden that comes with organising an entire software development lifecycle.



The bottom line: Getting ready for Generative AI's next chapter

Within a year of Generative AI's arrival in mainstream discussions,¹⁷ the 'honeymoon phase' is concluding. The next phase will focus far more on completing pilots, launching and scaling services, adding value, mitigating risk and understanding regulatory frameworks.

There are multiple ways in which organisations and vendors can prepare for the coming year, including the following.

1. Actions for organisations

- **Identify case studies:** Propagate usage to identify case studies. Productive workers will tend to seek out technologies that make them more productive, and this has likely been a common (but not universal) motivation for using generative AI. When looking at the application of generative AI, companies should balance pragmatism with ambition.
- **Manage risk to enable deployment:** Usage of almost any technology creates new vulnerabilities, but companies can mitigate this via pre-emptive training courses as well as the provision of sandboxes for safe experimentation. Companies should ensure that usage of generative AI tools within their workforce does not result in sensitive data, financial documents, customer details, or proprietary code being inadvertently shared with AI platforms.
- **Understand and address employee concerns:** Employers should be sensitive to the fears that new technologies like generative AI can cause among the workforce. Explanations on how the technology works, including guidance on its limitations, are likely to be helpful.
- **Invest in skills:** Employers should also consider what new roles may be needed, or what existing roles may need further training. A 'prompt engineer' is skilled at the precise form of words required to generate a certain output.¹⁸ This may be a standalone role or an additional capability for an existing researcher, or coder or designer. Over the course of the next year, the job description of a prompt engineer will likely evolve.

- **Consider private as well as public models:** In fields like law, broad LLMs may not deliver the factual accuracy and precision needed. But specially trained models, that can specifically reference case law, and cite sources, might provide a more viable tool.¹⁹ Further companies may consider using hybrid LLMs which vary private and public data sets according to the task.
- **Consider the competition:** Clients will always expect their suppliers to innovate, so as to deliver more value. They will expect their suppliers to consider all new technologies that can increment productivity. Doing nothing may be perilous.
- **Vet suppliers proactively:** The most important generative AI vendors may be both established vendors as well as start-ups.

2. Actions for vendors

- **Scalable solutions:** Propagate case studies that focus on industry verticals, to identify scalable applications that might be applicable to many clients in one sector.
- **Optimise the user interface:** Generative AI's success will depend on ease of use, and over the coming year, the most successful tools will have the optimal balance of accessibility and functionality.
- **Considering pricing:** Potential customers will soon start asking about potential fee structures. Vendors should consider underlying compute costs as well as IP costs.
- **Mitigate hallucination:** Over the coming year there is likely to be increasing focus on the efficacy of generative AI. Customers for generative AI will increasingly be looking to identify examples of where tools are consistently able to deliver value. A large part of being valuable will be about accuracy.
- **Signpost possible risks:** As our research has shown, a large proportion of users are not aware of the likelihood of error. User interfaces should guide clearly on when responses delivered may include errors.
- **Anticipate regulation:** Generative AI will operate within existing regulatory frameworks such as the AI Act in the EU, and also more general regulation such as GDPR. Vendors should understand how this regulation's various principles may shape applications.

Authors



Paul Lee
Partner
Global Head of TMT Insights



Ben Stanton
Manager
TMT Insights

Endnotes

Deloitte surveyed a nationally representative sample of 4,150 UK consumers about Generative AI, as part of its Digital Consumer Trends survey, fielded in May and June 2023.

- 1 "The Course of Marital Success in Failure in Five American 10-Year marriage Cohorts", Norval D. Glenn, Journal of Marriage and Family, <https://www.jstor.org/stable/353529?origin=crossref>
- 2 "Transformer: A Novel Neural Network Architecture for Language Understanding", Google Research, <https://ai.googleblog.com/2017/08/transformer-novel-neural-network.html>
- 3 "How to use generative AI for marketing", TechTarget, <https://www.techtarget.com/searchcustomerexperience/feature/How-to-use-generative-AI-for-marketing>
- 4 "Will AI seal the deal for commercial contracts?", Financial Times, <https://www.ft.com/content/50207a1b-8285-4735-8530-5669f91a5133>
- 5 "GitHub Copilot is now available to individual developers", GitHub Blog, <https://github.blog/changelog/2022-06-21-github-copilot-is-now-available-to-individual-developers/>
- 6 One of the most prominent examples from our survey results is Snapchat My AI, <https://www.snapchat.com/add/myai>
- 7 "Science journals ban listing of ChatGPT as co-author on papers", The Guardian, <https://www.theguardian.com/science/2023/jan/26/science-journals-ban-listing-of-chatgpt-as-co-author-on-papers>
- 8 "ChatGPT: US lawyer admits using AI for case research", BBC, <https://www.bbc.co.uk/news/world-us-canada-65735769>
- 9 "First known student caught using ChatGPT at UK university", The Tab, <https://thetab.com/uk/2023/05/15/first-known-student-caught-using-chatgpt-at-uk-university-heres-how-they-were-exposed-308295>
- 10 "Hackers are using ChatGPT to write malware", Tech Radar, <https://www.techradar.com/news/hackers-are-using-chatgpt-to-write-malware>
- 11 "Companies That Have Banned Artificial Intelligence Platforms", Analytics Insight, <https://www.analyticsinsight.net/companies-that-have-banned-artificial-intelligence-platforms/>
- 12 Generative AI – framing a business-centric policy to address opportunities and risks, DLA Piper, <https://www.dlapiper.com/insights/publications/ai-outlook/2023/generative-ai-framing-a-business-centric-policy-to-address-opportunities-and-risks?blaid=4787916>
- 13 Letter from the editor on generative AI and the FT, Financial Times, <https://www.ft.com/content/18337836-7c5f-42bd-a57a-24cdbc06ec51>
- 14 "GPT-3 does the same thing to predict the next word in a sentence, except it uses 175 Billion parameters", Generative AI (1/2): the new wave of AI is coming, Medium (Abel Samot), https://medium.com/@abel_samot/generative-ai-1-2-the-new-wave-of-ai-is-coming-3876d34a8985

- 15 Technology and people: The great job-creating machine, Ian Stewart, Debapratim De, Alex Cole, Deloitte, 2015, <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/finance/deloitte-uk-technology-and-people.pdf>
- 16 GPTs are GPTs: An Early Look at the Labor Market Impact Potential of Large Language Models; Eloundou, Manning, Mishkin and Rock, OpenAI, OpenResearch, University of Pennsylvania, <https://arxiv.org/abs/2303.10130>
- 17 Introducing ChatGPT, OpenAI, <https://openai.com/blog/chatgpt>
- 18 "Is becoming a 'prompt engineer' the way to save your job from AI?", Financial Times, <https://www.ft.com/content/0deda1e7-4fbf-46bc-8eee-c2049d783259>
- 19 For example, Lexis+, <https://www.lexisnexis.co.uk/products/lexis-plus.html>



This publication has been written in general terms and we recommend that you obtain professional advice before acting or refraining from action on any of the contents of this publication. Deloitte LLP accepts no liability for any loss occasioned to any person acting or refraining from action as a result of any material in this publication.

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 1 New Street Square, London EC4A 3HQ, United Kingdom.

Deloitte LLP is the United Kingdom affiliate of Deloitte NSE LLP, a member firm of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NSE LLP do not provide services to clients. Please see www.deloitte.com/about to learn more about our global network of member firms.

© 2023 Deloitte LLP. All rights reserved.

Designed and produced by 368 at Deloitte. J31336-2