



# Think Forward with PayPal

The Age of AI-Commerce:  
Innovation Unbound

Issue Three





# Contents

- 3 **Introduction**
- 4-5 **Quick Search, Rapid Relevance:  
Enhancing Product Discovery**
- 6-7 **Individual Intelligence:  
Personalisation in Every Interaction**
- 8-9 **Artificial Assistants:  
A Behind-the-Scenes Helper**
- 10 **Mapping Your Generative AI Strategy:  
5 Key Considerations**
- 11 **Conclusion**
- 12 **Your AI Cheat Sheet**
- 13 **Key Moments:  
The Evolving Timeline of Generative AI**



**Generative AI exploded into public consciousness over the past 12 months. Tools like ChatGPT, Bing Chat, Google Bard and MidJourney have delighted consumers and captured the attention of business leaders worldwide, with the share of companies piloting the technology tripling in less than 6 months.<sup>1</sup>**

The impact of generative AI has been likened to the launch of the smartphone, and it will have implications for brands across all sectors. As adoption picks up, more opportunities for innovation will emerge, resulting in new business models and the chance to drive positive change.

In the final instalment of our 3-part series, PayPal has teamed up with TrendWatching to Think Forward to the future of business. In this issue, we explore how generative AI (or GenAI) is reshaping the business landscape and the innovative ways that brands can leverage the technology's power, reach and capabilities in the coming months.

<sup>1</sup>. Gartner, Oct 2023.



# Quick Search, Rapid Relevance: Enhancing Product Discovery

The sheer number of options can make shopping online overwhelming for many. Generative AI can quickly guide people to the product (or service) that meets their specific needs. Brands that are failing to provide this level of rapid relevance could very quickly lose out.

Generative AI is primarily being used by consumers to find product recommendations: 70% of consumers globally use these tools when searching for new products and services, with 64% open to making purchases based on the recommendations they provide.<sup>2</sup>

Allowing shoppers to ask questions using natural language in a chat interface is convenient. These tools can also handle more complex and nuanced questions, leading to more relevant results and overcoming the limitations (and frustrations) of earlier chatbots which relied heavily on scripted responses.

Google's AI-powered Search Generative Experience, announced in May 2023,<sup>3</sup> can summarise results and articles,<sup>4</sup> making it easier for people to identify information they're looking for. As these features roll out to more users, it will set new expectations around search functionality in e-commerce websites, too.

The future could see generative AI evolve further, by functioning like a personal assistant that can guide consumers to the exact products and services they need.<sup>5</sup>



# 42%

of consumers would be comfortable using conversational AI like ChatGPT for product recommendations.<sup>6</sup>

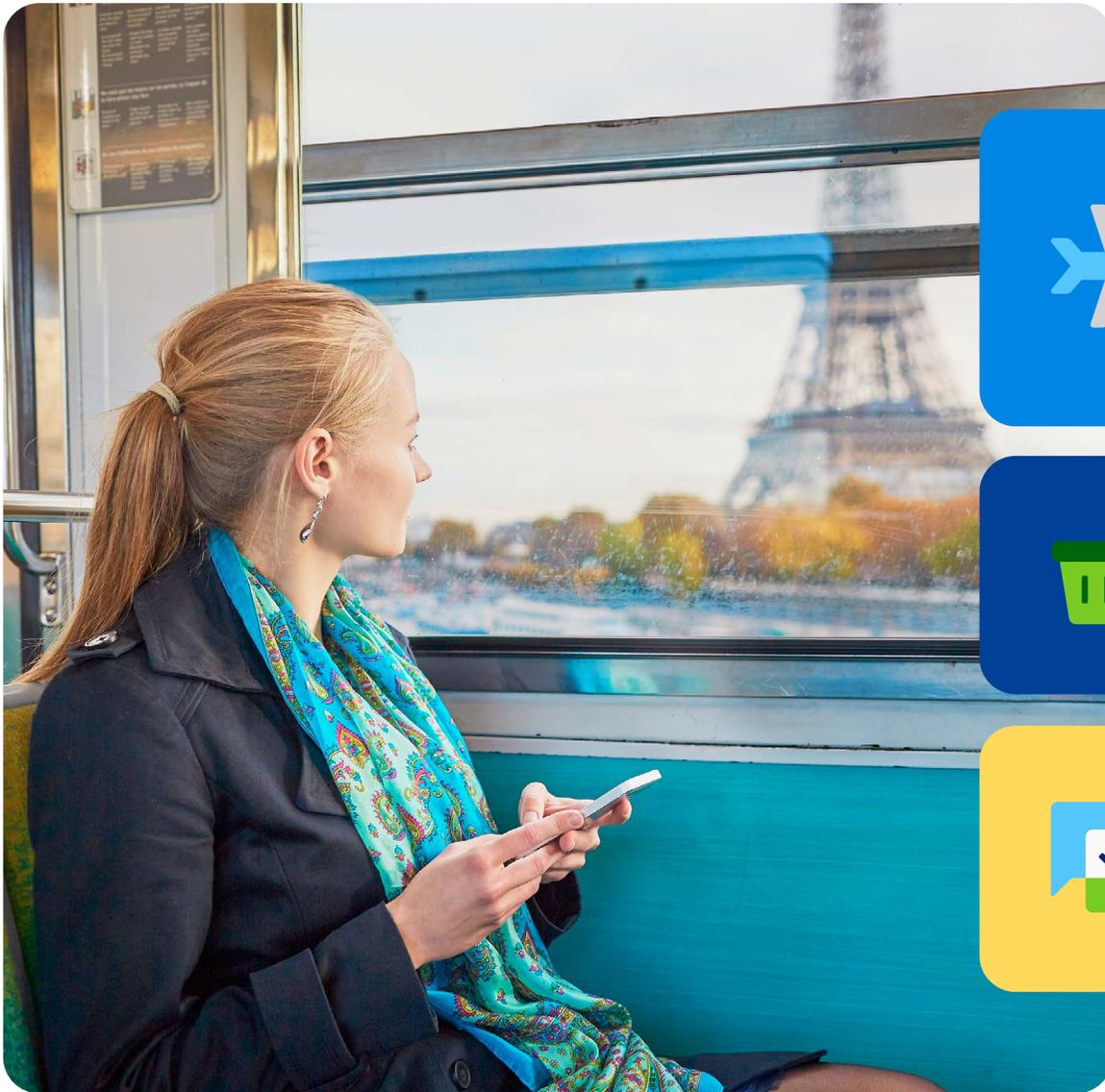
2. Why consumers love generative AI, Capgemini, Jun 2023.

3. Google, May 2023.

4. Google, Aug 2023.

5. Shopping without shopping, Accenture Song, Aug 2023.<sup>6</sup>

6. Life Trends 2024, Accenture, Oct 2023.



Developed by **Booking.com**, the AI Trip Planner can answer general travel-related questions and provide travel inspiration based on the customer's needs. The planner can also create unique itineraries for specific cities, countries or regions. Partially powered by LLM technology from OpenAI's ChatGPT API, it also leverages **Booking.com's** existing machine learning models.<sup>7</sup>



**Hopla** is a chatbot that can assist visitors of **Carrefour's** e-commerce site with their daily shopping. Available on the homepage, **Hopla** can help customers select products based on parameters such as budgets and dietary restrictions. It's connected to the site's search engine.<sup>8</sup>



Online retailer **Zalando** has developed a fashion assistant powered by ChatGPT that allows customers to ask questions using their own fashion terms and words (for example, 'What should I wear for a wedding in Santorini in July?'). Shoppers can have an ongoing conversation with the tool to further refine results.<sup>9</sup>

7. Booking.com, Jun 2023.

8. Carrefour, Jun 2023.

9. Zalando, Apr 2023.

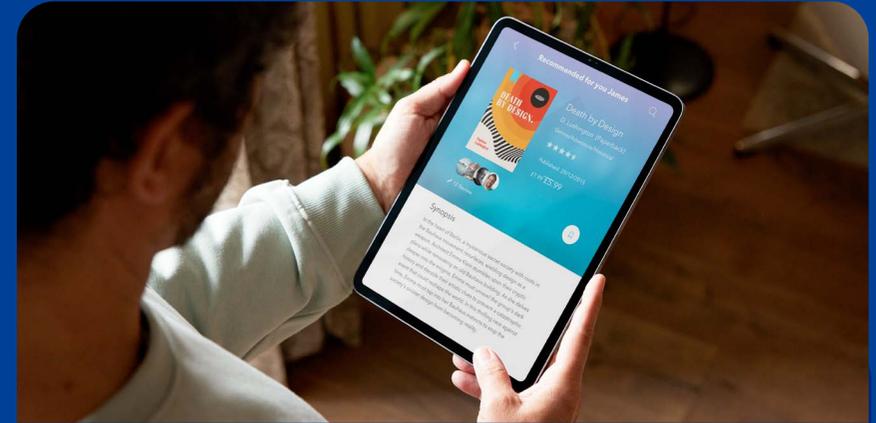
# Individual Intelligence: Personalisation in Every Interaction

Consumers appreciate personalisation: two-thirds want brands to reach out with discounts and offers on items they've purchased before.<sup>10</sup> Generative AI has the potential to enable hyper personalisation at every step of the consumer journey, from discovery to checkout. This will inevitably open up myriad opportunities for more dynamic and contextual shopping pathways.

Personalisation is already a cornerstone of consumer loyalty and engagement but generative AI is further heightening expectations: when tech advances, 73% of global consumers say they expect better personalisation.<sup>11</sup> The possibilities for brands include, among others, dynamic pricing and adaptive interfaces. Gartner predicts that 30% of new apps will use AI to drive personalised adaptive user interfaces by 2026, up from fewer than 5% today.<sup>12</sup>

Personalisation can deliver real returns: 56% of consumers say they will become repeat buyers after a personalised experience, a 7% increase year-on-year.<sup>13</sup> Generative AI could bring the quality of in store recommendations to online commerce, and so enhance loyalty.

Although generative AI offers remarkable personalisation options, mounting privacy concerns means that brands will need to communicate related benefits while practicing transparency around data collection.



# 67%

Among CMOs already implementing generative AI, 67% say that personalisation is the top use case.<sup>14</sup>

10. Retail Shopper Outlook, Oracle, 2022.

11. State of the Connected Consumer, Salesforce, Aug 2023.

12. Top 10 Strategic Technology Trends for 2024, Gartner, Oct 2023.

13. The State of Personalization, Twilio Segment, May 2023.

14. How CMOs Are Succeeding with Generative AI, Boston Consulting Group, Jun 2023.



To help online shoppers find the right clothing fit, **Google** introduced a generative AI-enabled try-on tool within their search functionality. Shoppers can choose from 40 models in a range of sizes, body shapes and ethnicities and digitally try the item on the selected model. The feature, available to any retailer set up in Google's Merchant Center, launched initially with women's tops.<sup>15</sup>



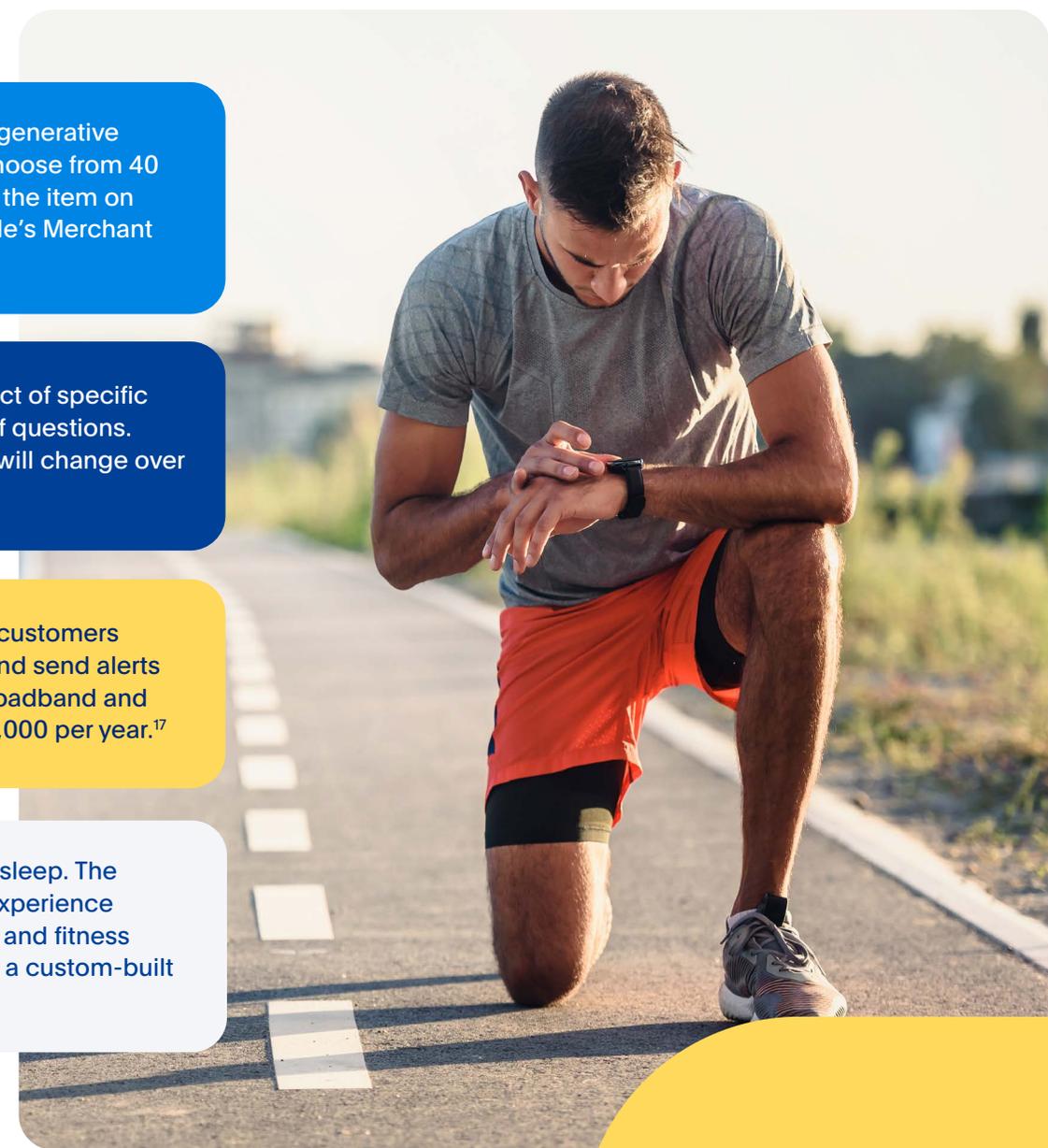
Developed by **Haut AI, SkinGPT**, uses generative AI to simulate the effect of specific skincare products. Customers upload their photo and answer a series of questions. The answers are combined with clinical data to simulate how their skin will change over time when using certain skincare products.<sup>16</sup>



In the UK, **Nous** has launched an OpenAI-powered assistant that helps customers understand and manage their energy bills. It can also summarise bills and send alerts about potential savings. The company plans to extend the service to broadband and insurance. **Nous** claims that the assistant can save households up to £1,000 per year.<sup>17</sup>



**WHOOP** is a smart fitness wearable that monitors the user's health and sleep. The brand recently introduced WHOOP COACH: an on-demand coaching experience that generates individualised conversational responses to users' health and fitness questions. It's powered by OpenAI, proprietary **WHOOP** algorithms and a custom-built machine learning model.<sup>18</sup>



15. Google introduces virtual try-on using generative AI, Vogue Business, Jun 2023.

16. Haut.AI, Apr 2023.

17. What happened when Nous.co hooked up generative AI to its users' household bills, TechCrunch, Jul 2023.

18. WHOOP, Sep 2023.

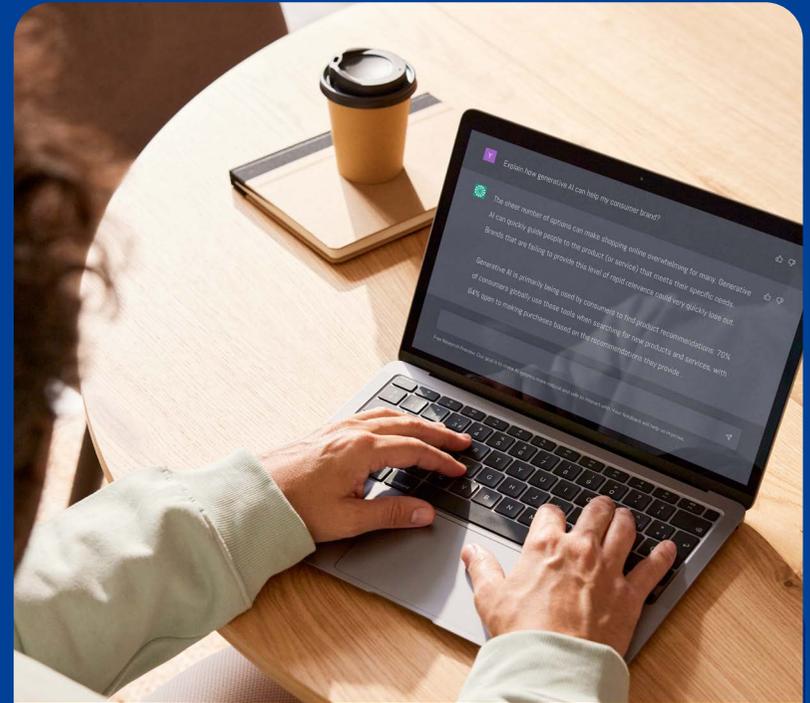
# Artificial Assistants: A Behind-the-Scenes Helper

By one estimate, generative AI tools could drive a 7% increase in global GDP and lift productivity growth by 1.5 percentage points over 10 years.<sup>19</sup> Rolling this technology out internally could help brands improve customer service and eliminate repetitive tasks to free up people to focus on more creative work. In 2024 and beyond, brands should consider how generative AI can enhance productivity and become a trusted and effective virtual copilot.

While many tech employees were quick to embrace and adopt generative AI tools, the technology has also rapidly attracted the interest of workers across a range of industries who are keen to redirect their attention to more fulfilling tasks. One study found that new or low skilled workers saw the biggest increase in productivity when given access to a conversational assistant.<sup>20</sup>

For the 70% of global CEOs that are investing heavily in generative AI as their competitive edge for the future,<sup>21</sup> it will be crucial to communicate the benefits and constraints behind the technology to both employees and consumers – just over half of customers trust companies to use AI ethically.<sup>22</sup>

With the treatment of employees the top issue consumers expect CEOs to take a stand on,<sup>23</sup> effective internal and external communication should be a central component of an artificial assistant rollout.



# 31%

of global employees expect that AI will help increase their productivity and efficiency at work over the next five years.<sup>24</sup>

19. Goldman Sachs, Apr 2023.

20. Workers with less experience gain the most from generative AI, MIT, Jun 2023.

21. 2023 KPMG CEO Outlook, KPMG, Oct 2023.

22. State of the Connected Consumer, Salesforce, Aug 2023.

23. 2023 Edelman Trust Barometer, Edelman, Jan 2023.

24. Global Workforce Hopes and Fears Survey 2023, PwC, Jun 2023.



My Assistant has been made available to over 50,000 **Walmart** employees. The generative AI-powered tool can act as a creative partner by accelerating draft writing and summarising large documents.<sup>25</sup> **Walmart** is also using the technology to develop a shopping assistant that can help plan parties or decorate homes.<sup>26</sup>



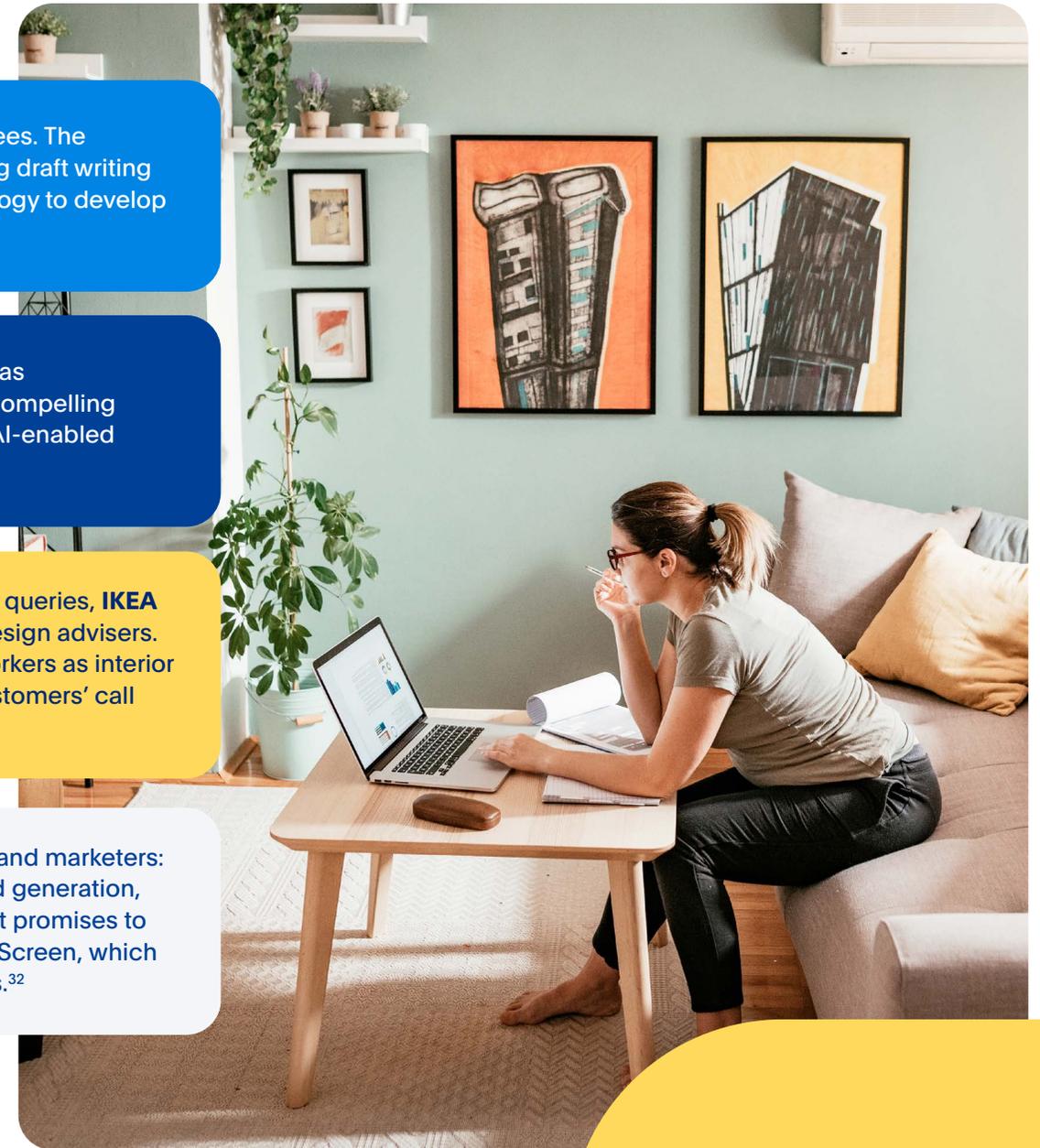
To simplify the listing process for sellers using their platform, **Amazon** has established generative AI capabilities that can turn short prompts into compelling product titles and descriptions.<sup>27</sup> **eBay** has also rolled out a generative AI-enabled tool that turns photos uploaded by sellers into product listings.<sup>28</sup>



Following the introduction of AI bot 'Billie' to handle real-time customer queries, **IKEA** is investing in the upskilling of call centre workers to become interior design advisers. Ingka (**IKEA's** holding company) says it has trained 8,500 call centre workers as interior design advisers since 2021; during that period Billie handled 47% of customers' call centre queries.<sup>29</sup>



Social platforms are also going all-in on artificial assistants for creators and marketers: **Meta** has rolled out tools that allow advertisers to use AI for background generation, image expansion, text variations and more.<sup>30</sup> **TikTok's** Creative Assistant promises to help video creators brainstorm ideas,<sup>31</sup> while **YouTube** is testing Dream Screen, which turns prompts into AI-generated video or image backgrounds for Shorts.<sup>32</sup>



25. Walmart rolls out generative AI-powered assistant to 50K employees, RetailDive, Aug 2023. 26. Walmart experiments with generative AI to help people shop, Axios, Sep 2023. 27. Amazon, Sep 2023. 28. eBay, Sep 2023. 29. IKEA bets on remote interior design as AI changes sales strategy, Reuters, Jun 2023. 30. Meta, Oct 2023. 31. TikTok, Sep 2023. 32. YouTube, Sep 2023.

# Mapping your generative AI strategy: 5 key considerations



# 1

## Organisation on overdrive.

Just 23% of surveyed consumer and retail organisations have appointed a central person or team to organise the response to the emergence of generative AI (vs 31% across all sectors).<sup>33</sup> Successful deployment rests on organisation: of data (internal and third-party), teams, talent and training. Disorganisation could inhibit the adoption and usage of the technology.

# 2

## The power of partnerships.

Tech companies, including **Microsoft, IBM, Google, Salesforce** and **Meta**, are launching enterprise-level tools powered by generative AI. There are also many startups operating in this space. An ecosystem of well selected partners could allow businesses to truly embed generative AI and derive real value from the technology.

# 3

## Experimentation is key.

The applications of generative AI are near limitless. Leaning into creativity could uncover some surprising use cases. As the technology advances, continue to match capabilities with business and customer needs – this will help uncover new opportunities.

# 4

## Governance, ethics and responsibility.

Concerns about the impact generative AI could have on jobs and society are well documented. Companies should cultivate a customer-first mindset when developing technology-enabled services and build within appropriate guardrails. Ethics and responsible AI principles should be key considerations for implementation.

# 5

## Under human control.

Generative AI can be deployed both internally and in customer-facing scenarios. Consumers will be less forgiving of inadequate services and won't tolerate incorrect or irrelevant information. This reinforces the need for governance and human supervision.

**Generative AI has the real potential to significantly change the commerce landscape and enhance the customer experience. Throughout any adoption of AI, prioritising the consumer is paramount. Brands and retailers can use natural-language interfaces to gain understanding of their customers and guide them to the right products and services or deliver next-level personalisation that's truly tailored to the individual.**

In the longer term, generative AI-enhanced chatbots could function like personal assistants with the ability to understand the customer and shop on their behalf.

There are also potential impacts on operational efficiencies. Generative AI could fundamentally change the overall working landscape by automating repetitive tasks, however employers will need to upskill workers and remain mindful of concerns about job displacement.

We're just at the beginning of the generative AI era. Time and investment will be needed, and business leaders should be prepared to embrace this technology while remaining alert to the challenges it presents.



# Your AI Cheat Sheet

## Application programming interface (API):

Rules and protocols that allow software programs to interact with each other. APIs simplify access to generative AI capabilities and can help developers train and deploy models.

## Artificial Intelligence (AI):

Broadly, the capability of machines to imitate intelligent human behaviour. AI systems can perform complex tasks in the same way humans can solve problems.

## Deep learning:

A subset of machine learning that can imitate the way humans gain certain types of knowledge. It requires a large amount of data and computing power, and can be used to perform classification tasks, recognise patterns and more.

## Generative AI (GenAI):

Algorithms that can be used to generate entirely new outputs (including audio, code, images, text and videos) based on data they were trained on. ChatGPT and MidJourney are examples of generative AI.

## Large language models (LLMs):

Deep learning algorithms that have been trained on vast datasets and can recognise, summarise, translate, predict and generate a variety of content. ChatGPT is one application of an LLM.

## Machine learning:

A branch of AI and computer science focused on using data and algorithms to imitate the way humans learn without being explicitly programmed.

## Neural networks:

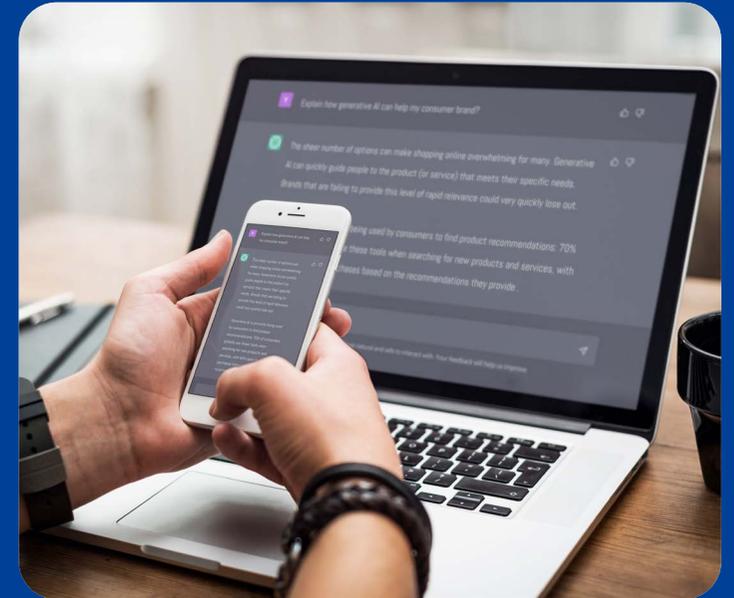
A method of data processing that's inspired by the human brain. Artificial neural networks (ANNs) comprise of interconnected nodes, organised into layers.

## Natural language processing (NLP):

Giving computers the ability to comprehend and interpret human language (both text and speech). NLP is used in a variety of products and services, including voice-activated assistants.

## Prompt engineering:

Designing inputs (questions or instructions) for LLMs and generative AI tools that will produce the best outputs (responses).



# Key Moments: The Evolving Timeline of Generative AI

MIT computer scientist Joseph Weizenbaum creates ELIZA, a chatbot which made certain kinds of natural language conversation between a human and computer possible.

Deep Blue, an AI chess playing computer developed by IBM, defeats chess grandmaster Garry Kasparov.

Tomas Mikolov and team unveil Word2vec which uses a neural network to learn word associations from a large set of text. It can suggest additional words to complete sentences and synonyms.

Staged rollout of Open AI's GPT-2, which was built on the first release in 2018. It has the ability to produce coherent, multi paragraph text.

Per UBS estimates, ChatGPT reaches 100 million active users, making it the fastest-growing consumer internet app in history. Google introduces Bard; Meta introduces LLaMA.

1966

1980s

1997

2011

2013

2016

2019

2022  
November

2023  
February

2024  
Onwards

John Hopfield and David Rumelhart popularise 'deep learning' techniques which allow computers to learn through experience.

IBM's Watson AI system beats two human competitors on TV quiz show Jeopardy; Apple introduces the iPhone 4S which features a beta version of Siri.

AlphaGO (an AI-based program developed by DeepMind) defeats Lee Sedol, a world champion Go player. (Go is a complex board game that originated in ancient China).

Open AI releases ChatGPT to the public; unprecedented media coverage follows.

**How will you define the future?**

An opportunity for your brand to disrupt the market by leveraging generative AI as a competitive advantage.



## About PayPal

PayPal has remained at the forefront of the digital payment revolution for more than 20 years. By leveraging technology to make financial services and commerce convenient, affordable, and secure, the PayPal platform is empowering more than 435 million active global accounts in 200+ markets to join and thrive in the global economy.

**Learn more about how you can Think Forward with PayPal.  
Our sales and support experts are here to help.**

[Connect With Us](#)

## About TrendWatching

As one of the world's leading consumer trend firms since 2002, TrendWatching is purpose-built to guide, inspire and empower business professionals. To achieve this, we deliver world-class content and insights to over 100,000+ trend-driven professionals worldwide. Our in-house teams in Amsterdam, London, Barcelona and beyond relentlessly scan the globe to spotlight countless trends, innovations and meaningful opportunities — supported by a network of 300+ spotters in more than 80 countries

The content of this report is provided for informational purposes only. You should always obtain independent business, tax, financial, and legal advice before making any business decision.

