WHY CONSUMERS LOVE GENERATIVE AI

#GetTheFutureYouWant

Capgemini
RESEARCH INSTITUTE

Executive Summary

For a growing number of use cases – including activities traditionally thought exclusive to the human mind, such as generating content and brainstorming – generative AI is becoming an integral part of many people's personal and working lives. We found consumers to be highly aware of the latest trends in generative AI and many have started using generative AI tools. Unlike the earlier tech trends, including the internet, mobile, and social media, first-wave generative AI is being used by consumers across all age groups. In this research, we find that:

- Consumers of all age groups are highly satisfied with generative AI applications; satisfaction levels are highest with chatbots, gaming, and search use cases
- Consumers across age groups have high trust levels for generative-AI-based interactions; many are even willing to seek financial, medical and relationship advice from generative AI tools

Organizations and regulators must scrutinize the high trust levels in generative AI, as a subsequent lack of caution could leave consumers vulnerable to the dangers posed by fake news, deepfakes, cyberattacks, and plagiarism. The high trust levels may be due in part to low public awareness of risks; the perception that legislation offers protection; and limited cases of AI interactions violating consumer trust. We should note that a significant minority are conscious of the potential for unethical or downright malicious misuse of AI. We found, for instance, that one in three consumers are worried about the non-recognition/non-payment of artists/contributors whose work is used in the training of

Executive Summary

generative AI algorithms and of phishing attacks that use generative AI technology to deceive individuals.

Consumers would like to see a broad implementation of generative AI across their interactions with organizations:

- Consumers are comfortable with the implementation of generative AI in marketing and advertising, provided it doesn't negatively impact their overall experience
- They are open to purchasing new products or services recommended by generative AI
- They would pay the same amount for content created by generative AI as that written by humans and would pay more for generative-AI-powered tax-preparation services and virtual generative-AI-powered travel agents

In this report, we highlight guidelines that will help brands, regulators, and consumers in their generative AI journeys. First, companies should lean on generative AI for brand engagement and help in designing safe, unbiased systems. Consumers must use the tools cautiously, verifying the information provided, and should not be reticent about seeking help in high-risk situations. Regulators must strengthen legislation to protect consumers by requesting disclosures, establishing accountability, and improving user control. Used in a monitored, controlled fashion, generative AI is the key to an exciting digital future.

The AI Generation

Generative artificial intelligence (AI) is rapidly transforming the way we interact with technology, enabling machines to create, design, understand, and generate content with significant implications for businesses and consumers alike.

Generative AI tools such as Midjourney and ChatGPT allow consumers to experiment with the technology in ways that, even recently, few would have imagined. Launched in November 2022, ChatGPT saw a remarkable surge in popularity, amassing over 1 million users in just five days. Within two months of launch, it had over 100 million active monthly users, establishing itself as the fastest-growing consumer application in history.[1]

This report is the first of two we will publish on the topic in 2023. In this report, we will explore how consumers are using generative AI applications and offer insights into how generative AI is shaping the future of the consumer experience. We also discuss consumers' high level of trust in generative AI applications and consider whether this is misplaced. We also provide our guidance for using generative AI responsibly.

In the second report, to be published later this year, we will delve into the transformative potential of generative AI for organizations across industries, asking how the technology could reshape businesses; highlighting industry-specific use cases; and comparing rates of adoption between industries.

To gauge consumer perceptions of generative AI, we conducted a global survey of 10,000 consumers over the age of 18 across Australia, Canada, France, Germany, Italy, Japan, the Netherlands, Norway, Singapore, Spain, Sweden, the UK, and the US. We supplemented this research with social and search analysis on consumer perception around generative AI on certain social media channels in multiple languages across the same countries. For more details on the survey sample, please refer to the Research Methodology.

The report explores four broad themes:

1. How are consumers using generative AI?
2. Do consumers trust generative AI and are they unconcerned about misuse?
3. How will generative AI transform the way consumers search for and buy products?
4. What are the consumer guidelines for organizations on their generative AI journeys?

Fig.1

Generative AI applications across multiple formats

Defining generative AI

Generative AI has the capability to learn the properties and patterns of data for a wide range of applications – from creating text, images, and videos in different styles to generating personalized content. It has the potential to enable machines to perform creative tasks previously thought exclusive to humans. The following table summarizes the top generative AI applications reported as part of our research, and gives some indicative examples.

		Top generative AI applications	Indicative examples
	Text	Summarizing and translating into multiple languages	GPT- 3.5 and GPT-4[1] (Generative Pre-trained Transformer)
	Images and video generation	Analyzing existing images/video to generate new content (e.g., video games, VR, animation)	Adobe Firefly[2]
	Audio	Music generation and remixing, speech synthesis, sound effects, voice conversion, audio enhancement	Sonix (a cloud-based audio and video transcription solution)[3]
	Chatbots	Chatbots to provide automated customer service and advice	Google Bard[4]
	Search	Enhanced search functions using natural language processing and machine learning	Perplexity AI[5]

Source: 1. TechTarget, "What is generative AI? Everything you need to know," March 5, 2023.
2. Adobe, "Adobe unveils Firefly, a family of new creative generative AI," March 21, 2023.
3. Sonix.ai, "Sonix releases the world's first automated transcription and generative AI summarization tool," December 14, 2022.
4. Cointelegraph, "What is Google's Bard, and how does it work?" May 10, 2023.
5. Kevin-Indig, "Early attempts at integrating AI in Search," January 10, 2023.

01

# HOW ARE CONSUMERS USING GENERATIVE AI?

Fig.2

High consumer awareness of generative AI tools

Our research revealed that fifty-one percent of consumers are aware of the latest trends in the generative AI space and have also explored generative AI tools, while another 35 percent are aware but have not used generative AI tools. Fourteen percent of our sample mentioned they are neither aware nor have used any generative AI tools (see Figure 2).

Baby boomers have the highest awareness and exploration of generative AI tools (53.5 percent), followed by Gen X with 51.7 percent. Gen Z has a slightly lower percentage (50.8 percent), and Millennials have the lowest percentage (50.2 percent) among the different age groups.

SHARE OF CONSUMERS WHO ARE AWARE OF THE GENERATIVE AI SPACE AND EXPLORED TOOLS SUCH AS CHATGPT, DALL-E

14%

35%

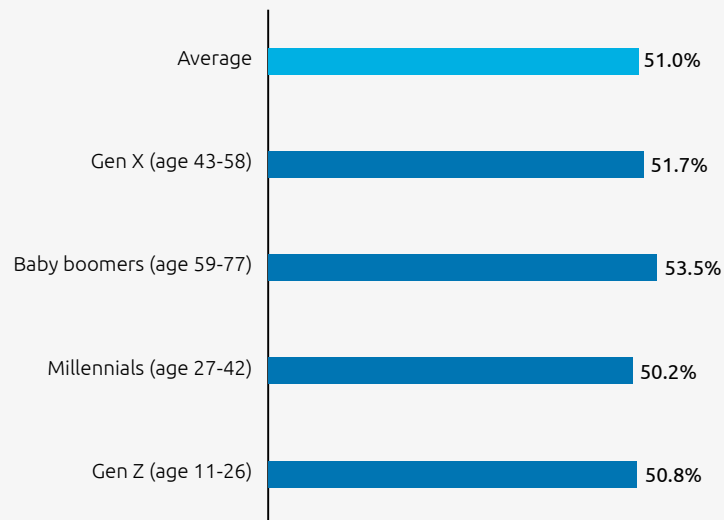51%
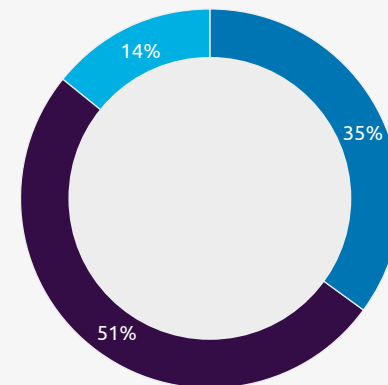
■ I am neither aware of nor have explored tools such as ChatGPT, DALL-E

■ I am aware of the latest trends in the generative AI space but have not explored tools such as ChatGPT, DALL-E

■ I am aware of the latest trends in the generative AI space and have also explored tools such as ChatGPT, DALL-E

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023, N=10,000.

Fig.3

Consumers across age groups are aware of the latest trends in the generative AI space and have explored tools

SHARE OF CONSUMERS WHO ARE AWARE OF THE LATEST TRENDS IN THE GENERATIVE AI SPACE AND HAVE ALSO EXPLORED GENERATIVE AI TOOLS (BY AGE RANGE)

Age group	Share
Average	51.0%
Gen X (age 43-58)	51.7%
Baby boomers (age 59-77)	53.5%
Millennials (age 27-42)	50.2%
Gen Z (age 11-26)	50.8%

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 10,000

A significant portion of both women (49.7 percent) and men (51.9 percent) are aware of the latest trends in the generative AI space and have explored tools such as ChatGPT and DALL-E. Japan has the highest percentage of individuals (56.5 percent) who are aware of and have explored generative AI tools, followed by Singapore (54.4 percent) and Sweden (54.3 percent).

51[%]

of consumers are aware of the latest trends in the generative AI space and have also explored generative AI tools

Fig.4

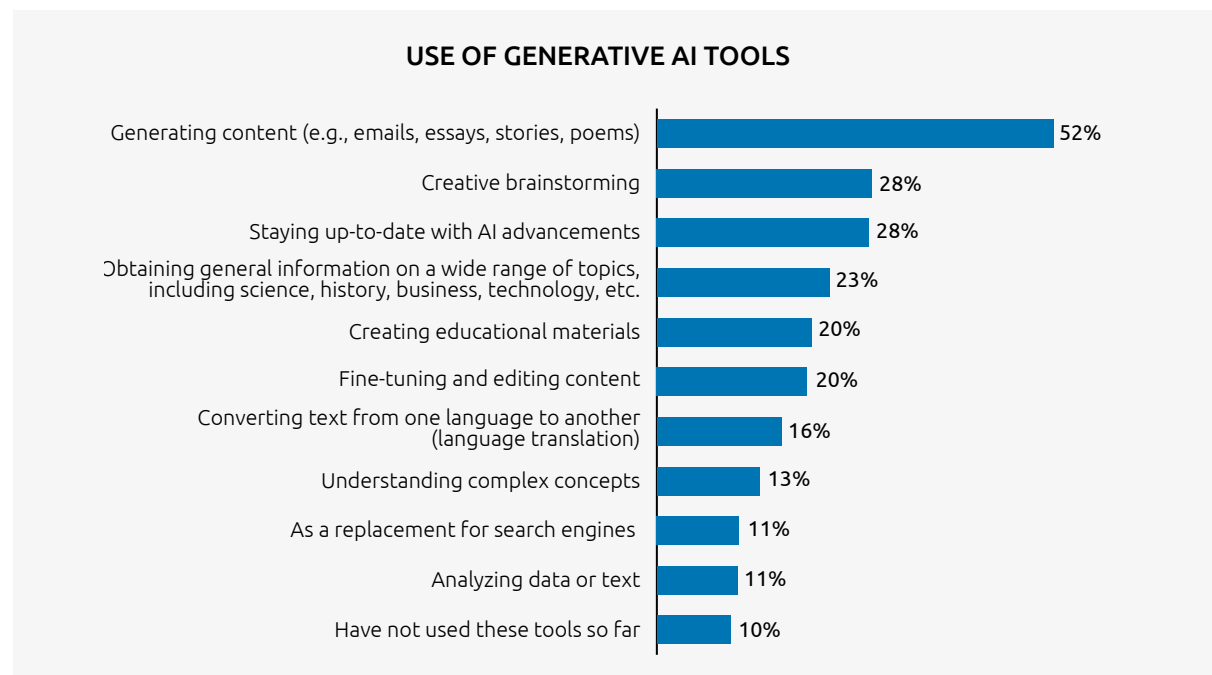Majority of consumers use generative AI tools for generating content

Consumers use generative AI for content generation and creative brainstorming

Consumers are using generative AI for creative purposes such as generating content (52 percent) and brainstorming (28 percent). Already, this is leading to complaints in the film industry, for example, that people are using generative AI tools to create mediocre content at a lower price. Generative models are being used to produce screenplays in the style of famous writers, raising concerns about the quality and authenticity of future scripts.[2] Over one-quarter (28 percent) use it for creative brainstorming (see Figure 4). A gardener creating a permaculture garden in Phoenix, Arizona, United States, which has a hot desert climate, used ChatGPT for inspiration on choosing plant species and to determine the best spot for each tree based on sun exposure throughout the year. ChatGPT suggested planting a moringa tree to provide shade for a star apple.[3] A writer and comedian used ChatGPT to enhance their creativity

USE OF GENERATIVE AI TOOLS

Use	Percent
Generating content (e.g., emails, essays, stories, poems)	52%
Creative brainstorming	28%
Staying up-to-date with AI advancements	28%
Obtaining general information on a wide range of topics, including science, history, business, technology, etc.	23%
Creating educational materials	20%
Fine-tuning and editing content	20%
Converting text from one language to another (language translation)	16%
Understanding complex concepts	13%
As a replacement for search engines	11%
Analyzing data or text	11%
Have not used these tools so far	10%

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 8,596.

and brainstorm ideas, particularly for suggesting words that rhyme or alliterate or finding synonyms that start with a specific letter to make jokes funnier.[4]

Consumers are also using this technology to create customized meal plans with specific requirements, such as gluten-free and vegan options; craft eloquent wedding speeches adorned with beautiful metaphors; compose effective work emails; summarize complex academic articles; help with homework and assignments; and much more.[5] With the help of generative AI tools, an individual from Rochester, New York, effortlessly created a 30-page illustrated children's e-book within a matter of hours. This e-book was quickly published and made available for purchase on Amazon.com's self-publishing unit in January. By mid-February, there were already over 200 e-books in Amazon's Kindle store listing a generative AI model as an author or co-author.[6]

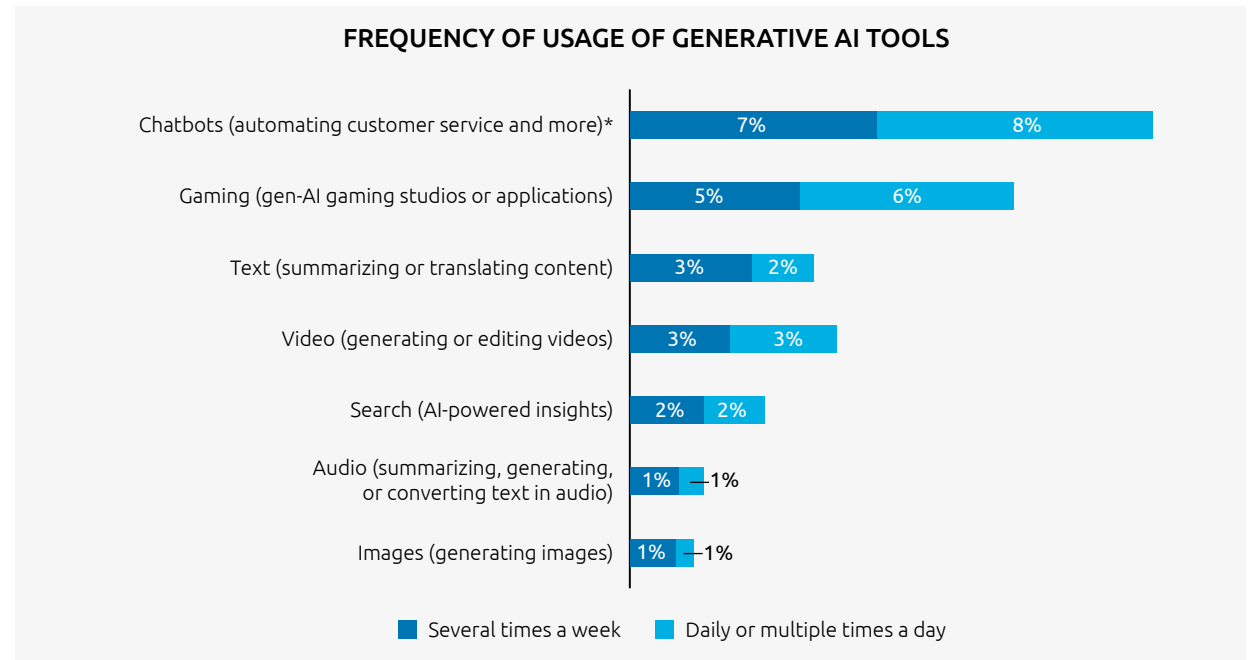Chatbots is the most frequently used generative AI use case

Consumers across all generations are using generative AI applications

Among the consumers that use generative AI platforms frequently (i.e., multiple times a week), usage is highest for chatbots (15 percent) and gaming (11 percent) (see Figure 5). We found that the satisfaction levels are highest for chatbots, gaming, and search use cases.

People are using generative AI tools such as ChatGPT to recreate classic games including Pong, Tetris, and Snake, as well as to generate story ideas and dialog for text-based role-playing games. A comprehensive range of generative AI tools empowers people to create code and generate assets, textures, audio, and descriptions.

FREQUENCY OF USAGE OF GENERATIVE AI TOOLS

Chatbots (automating customer service and more)* — 7% | 8%
Gaming (gen-AI gaming studios or applications) — 5% | 6%
Text (summarizing or translating content) — 3% | 2%
Video (generating or editing videos) — 3% | 3%
Search (AI-powered insights) — 2% | 2%
Audio (summarizing, generating, or converting text in audio) — 1% | 1%
Images (generating images) — 1% | 1%

■ Several times a week   ■ Daily or multiple times a day

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023, N = 8,596 consumers.
* performing diverse tasks related to sales, marketing, and personalized experiences

Fig.6

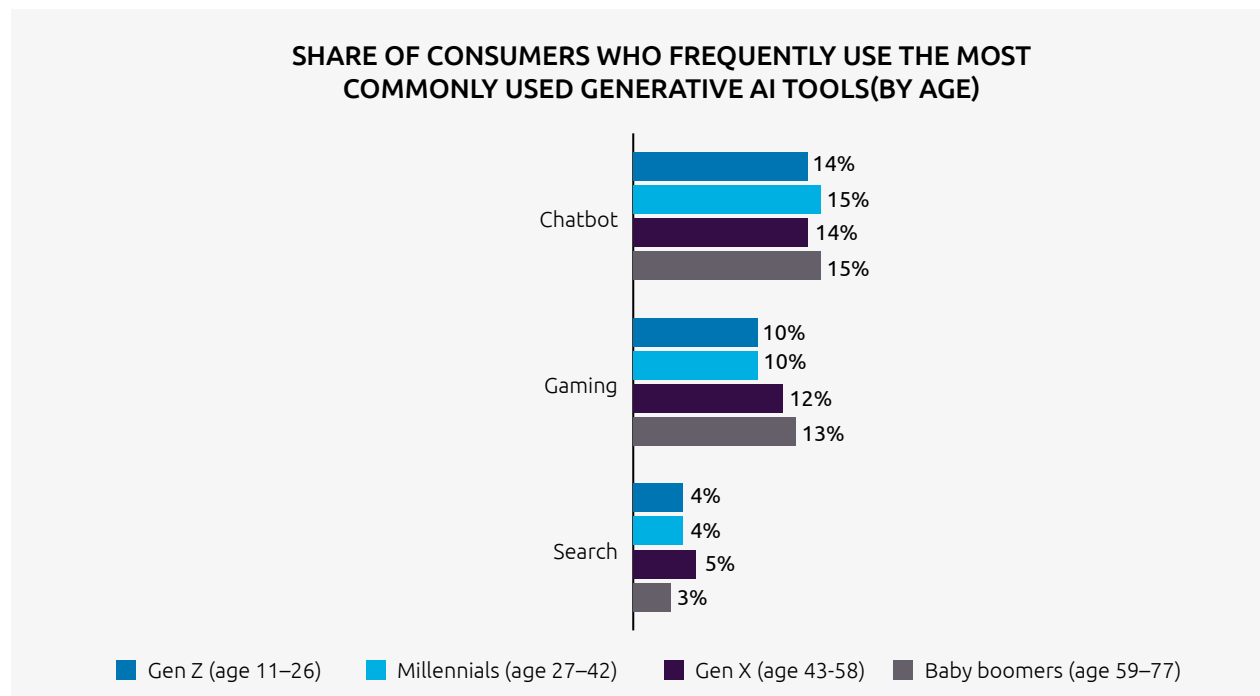Consumers of all ages use generative AI tools

14-15%

the use of chatbots across Gen Z, Millennials, Gen X, and Baby boomers

We further analyzed the frequency of usage among consumers across age groups and found little variation across generations. For instance, the use of chatbots is 14-15 percent across Gen Z, Millennials, Gen X, and Baby boomers, making this an accessible technology. Most generative AI tools interact in a technology-agnostic chat-based format, which makes it easy to understand and interact with all age groups (see Figure 6).

SHARE OF CONSUMERS WHO FREQUENTLY USE THE MOST COMMONLY USED GENERATIVE AI TOOLS(BY AGE)

Chatbot	Gen Z	14%
	Millennials	15%
	Gen X	14%
	Baby boomers	15%
Gaming	Gen Z	10%
	Millennials	10%
	Gen X	12%
	Baby boomers	13%
Search	Gen Z	4%
	Millennials	4%
	Gen X	5%
	Baby boomers	3%

■ Gen Z (age 11–26)   ■ Millennials (age 27–42)   ■ Gen X (age 43-58)   ■ Baby boomers (age 59–77)

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023, N = consumers who are aware of and frequently use commonly used generative AI tools, N = 1,247 (chatbots), N = 910 (gaming), N = 320 (search).
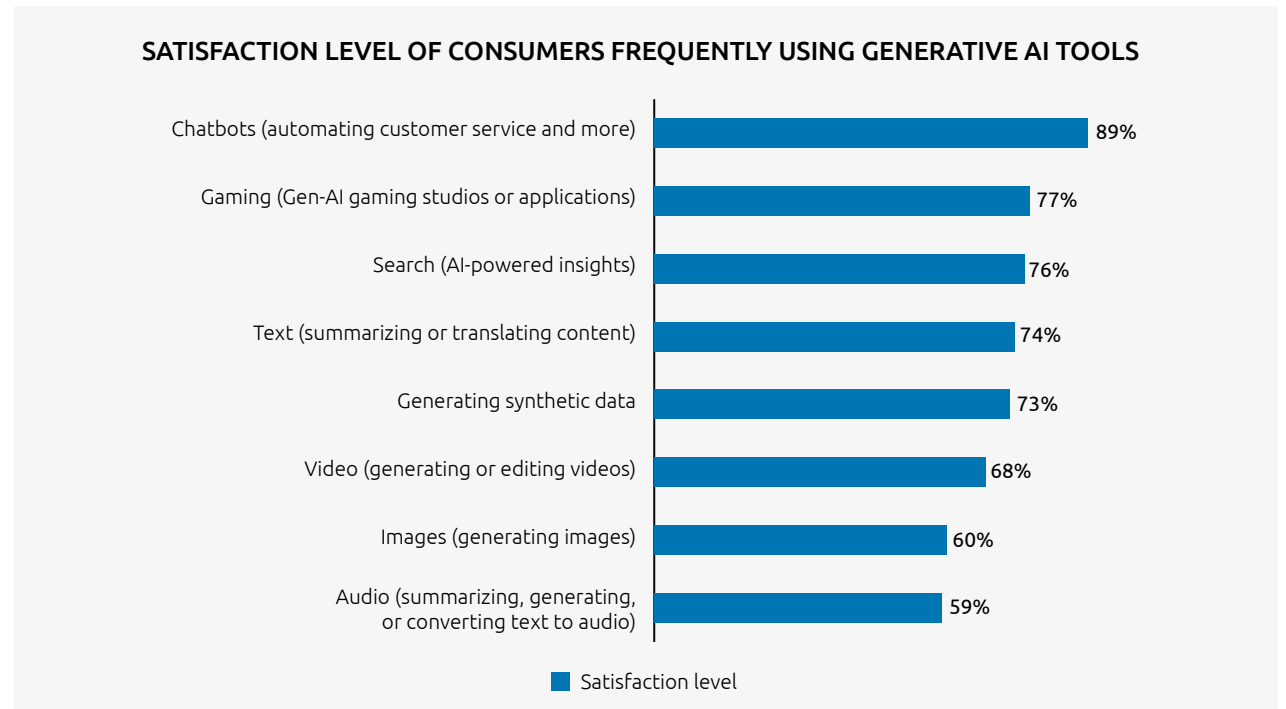
Consumers across age groups are highly satisfied with generative AI applications

On further analysis of consumers who frequently use generative AI applications, we found that satisfaction levels are highest for chatbots, gaming, and search use cases (see Figure 7). The satisfaction levels are high across all age groups and consumers with a postgraduate, doctoral, or professional degree. For instance, 89 percent of consumers say they are satisfied with chatbots, and when we look at this satisfaction across age groups, there is not much variation, with all at around 90 percent (see Figure 8).

Consumers are satisfied with the high efficiency of generative AI tools; however, this needs to be monitored over time, particularly in light of the phenomenon of AI "hallucinations" (see page 32).

Fig.7

The satisfaction level of consumers using chatbots is highest among generative AI use cases

SATISFACTION LEVEL OF CONSUMERS FREQUENTLY USING GENERATIVE AI TOOLS

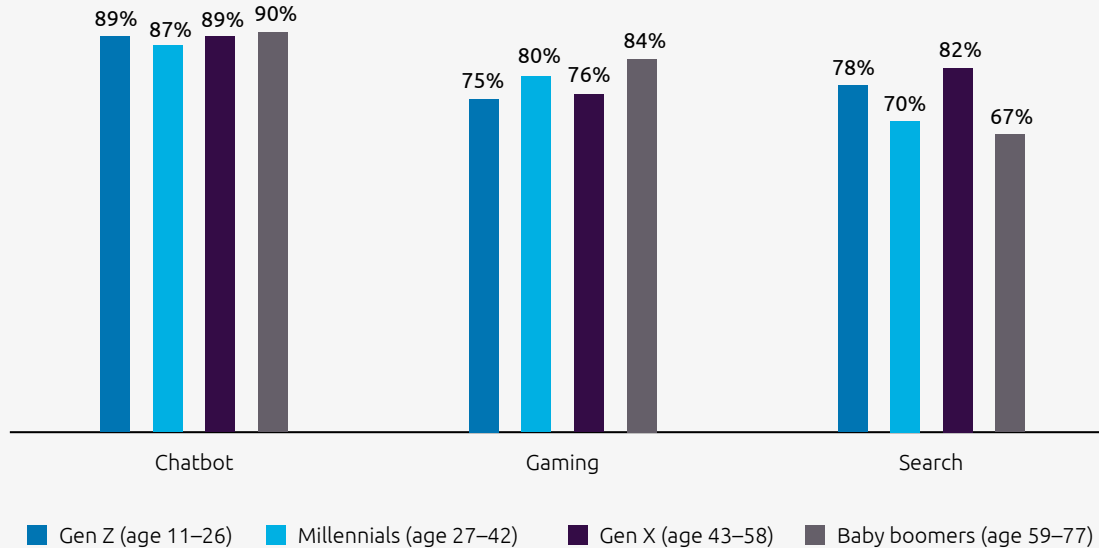| Use case	Satisfaction level
Chatbots (automating customer service and more)	89%
Gaming (Gen-AI gaming studios or applications)	77%
Search (AI-powered insights)	76%
Text (summarizing or translating content)	74%
Generating synthetic data	73%
Video (generating or editing videos)	68%
Images (generating images)	60%
Audio (summarizing, generating, or converting text to audio)	59%

■ Satisfaction level

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023; N = consumers who are aware of the generative AI tools and use them frequently; N = 1,247 (chatbots), N = 910 (gaming), N= 320 (search), N = 435 (text), N = 244 (generating synthetic data), N = 490 (video), N = 152 (images), N = 176 (audio).

Fig.8

Certain AI use cases elicit high satisfaction across age groups

SATISFACTION ACROSS AGE GROUPS FOR THE GENERATIVE AI USE CASES WITH THE HIGHEST SATISFACTION LEVELS

	Chatbot	Gaming	Search
Gen Z (age 11–26)	89%	75%	78%
Millennials (age 27–42)	87%	80%	70%
Gen X (age 43–58)	89%	76%	82%
Baby boomers (age 59–77)	90%	84%	67%

■ Gen Z (age 11–26)   ■ Millennials (age 27–42)   ■ Gen X (age 43–58)   ■ Baby boomers (age 59–77)

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023; N = consumers who are aware of frequently use commonly used generative AI tools and are highly satisfied with them; N = 1,247 (chatbots), N = 910 (gaming), N = 320 (search).
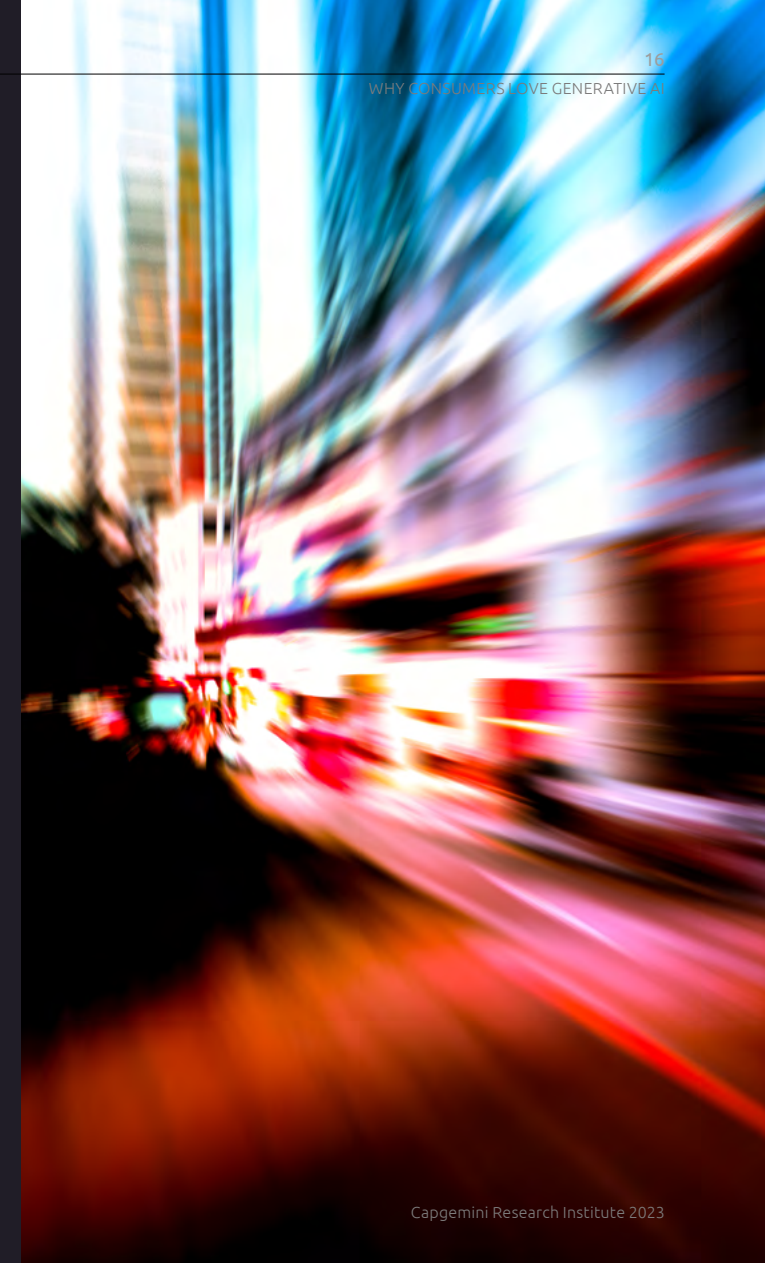
Consumers on social media

On social media, use cases with the highest mentions included creative arts/visuals, improvement in healthcare, curating effective content, gaming, coding, and reducing human effort. Benefits included new inventions, faster decision-making, error-free outputs, reduction of repetitive tasks, quick results, and 24/7 availability. Next, we share some country-level insights.
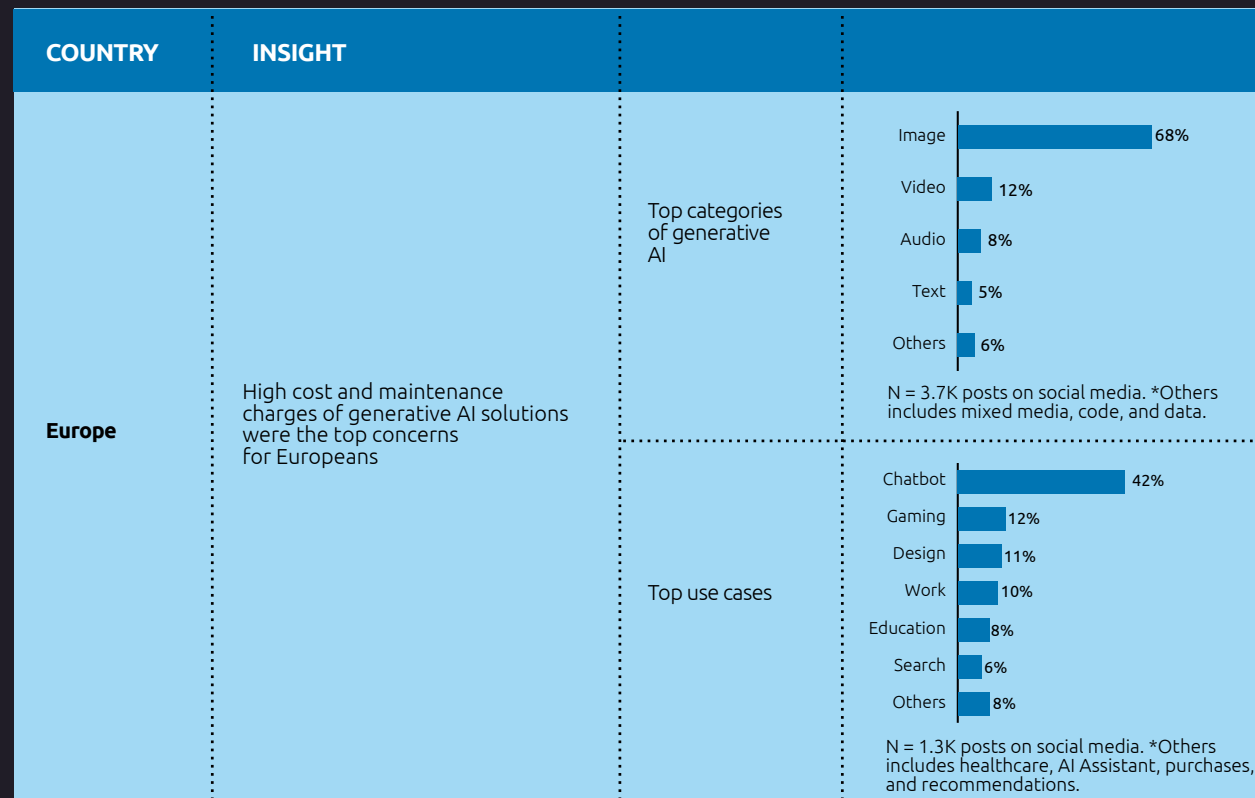
COUNTRY	INSIGHT		
United States	People in the US mostly shared AI art with anime features; NightCafe was one of the prominent tools	Top categories of generative AI	Image 71% Text 10% Video 7% Others 12% N = 23.4K posts on social media. *Others includes audio, mixed media, code, and data.
		Top use cases	Chatbot 54% Gaming 15% Education 8% Others 23% N = 9.2K posts on social media. *Others includes search, design, work, healthcare, AI assistant, purchases, and recommendations.

Source: Capgemini Research Institute analysis.

COUNTRY	INSIGHT		
APAC & Canada	While AI art featuring anime characters continues to be popular in Canada and APAC countries, incorrect/inaccurate outputs made users cautious about using generative AI	Top categories of generative AI	Image 77% / Text 9% / Audio 5% / Others 9% N = 4.8K posts on social media. *Others includes video, mixed media, code, and data.
		Top use cases	Chatbot 31% / Search 24% / Gaming 13% / Education 11% / Others 21% N = 1.1K posts on social media. *Others includes design, work, healthcare, AI assistant, purchases, and recommendations.

COUNTRY	INSIGHT		
Europe	High cost and maintenance charges of generative AI solutions were the top concerns for Europeans	Top categories of generative AI	Image 68% Video 12% Audio 8% Text 5% Others 6% N = 3.7K posts on social media. *Others includes mixed media, code, and data.
		Top use cases	Chatbot 42% Gaming 12% Design 11% Work 10% Education 8% Search 6% Others 8% N = 1.3K posts on social media. *Others includes healthcare, AI Assistant, purchases, and recommendations.

02

CONSUMERS TRUST GENERATIVE AI AND ARE UNCONCERNED ABOUT MISUSE

Fig.9

Consumers in Norway show the highest level of trust for content written by generative AI

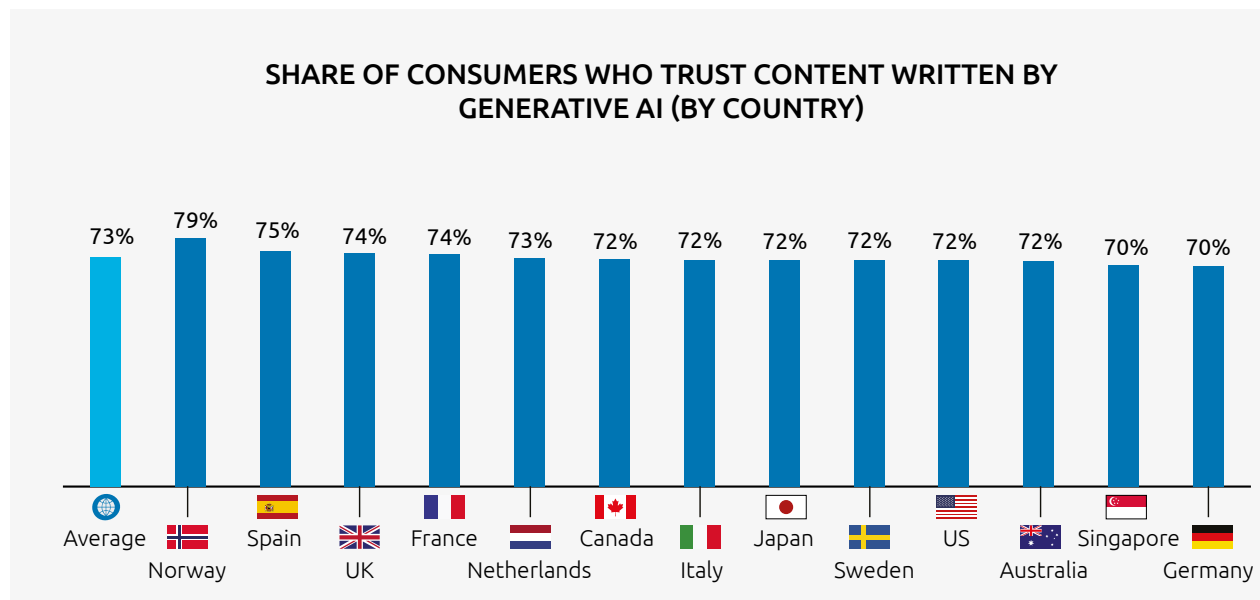# Consumers have high trust levels for generative-AI-based interactions

An important question for all consumers of generative AI applications is whether the technology can be trusted. We found that, in general, consumers currently trust the content from these generative AI platforms, even for financial, medical, and relationship advice.

Content written by generative AI has a high acceptance rate

Seventy-three percent of consumers trust content written by generative AI (see Figure 9). Consumers in Norway (79 percent) and Spain (75 percent) have the highest levels of trust in generative AI content. However, when we analyzed trust levels across age groups, we found little variation (Figure 10). Similarly, there is little variation by gender. Trust levels also increase with household income levels.

SHARE OF CONSUMERS WHO TRUST CONTENT WRITTEN BY GENERATIVE AI (BY COUNTRY)

Average	Norway	Spain	UK	France	Netherlands	Canada	Italy	Japan	Sweden	US	Australia	Singapore	Germany
73%	79%	75%	74%	74%	73%	72%	72%	72%	72%	72%	72%	70%	70%

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023, N = 8,596

These high levels of trust could be due to the greater efficiency brought by these applications and the availability of personalized content in a ready-to-use format, especially for tasks such as coding, multimedia creation, and editing. Tools such as ChatGPT respond to users' prompts in a clear, easily understood manner, and it is possible that consumers equate this clarity with accuracy. Further, popular generative AI applications such as ChatGPT are backed by renowned tech firms such as Microsoft and Alphabet, whose endorsements also increase consumer trust levels.

Sixty-four percent of consumers are thrilled by the prospect of using generative AI to draft, fine-tune, summarize, and edit content based on prompts, as it can save them time and effort. The most excited countries are Australia (67 percent), Canada (66 percent), and Singapore (66 percent) (Figure 11). As household income increases, the share of consumers excited about these technologies tends to increase also. Specifically, consumers with a household income of $140,000 were most likely to be excited about using generative AI (69 percent), while those with a household income of less than $20,000 reported the lowest level of enthusiasm (63 percent).

Louis DiCesari, Global Head of Data, Analytics, and AI at Levi Strauss confirms: *"If generative AI simplifies people's lives and adds value, it will transcend age barriers. The technology will see widespread adoption once its limitations are addressed and it delivers concrete consumer benefit."*

"If generative AI simplifies people's lives and adds value, it will transcend age barriers."
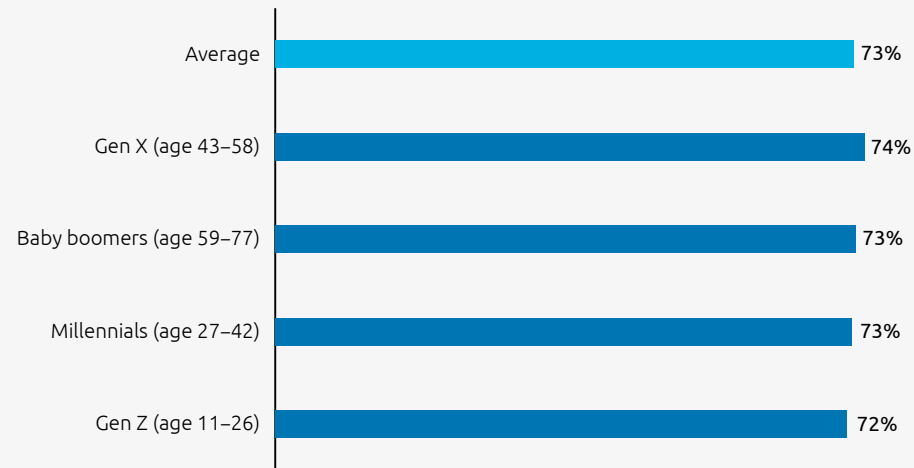
Louis DiCesari

Global Head of Data, Analytics, and AI at Levi Strauss

Fig.10

Consumers across age groups have a high level of trust in content written by generative AI

SHARE OF CONSUMERS WHO TRUST CONTENT WRITTEN BY
GENERATIVE AI (BY AGE RANGE)

Age Range	Percentage
Average	73%
Gen X (age 43–58)	74%
Baby boomers (age 59–77)	73%
Millennials (age 27–42)	73%
Gen Z (age 11–26)	72%

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023, N = 8,596.

Consumers are willing to seek financial advice from generative AI

Perhaps more surprisingly, we found that consumers have high trust levels in financial advice dispensed by generative AI platforms. Alpha, powered by GPT-4, is an investment co-pilot offering real-time and historical market data through a natural-language interface. By engaging with Alpha, users can access information about a wide range of assets, including stocks, exchange-traded funds (ETFs), cryptocurrencies, and more. The intuitive interface provides instant insights that enable users to make informed investment decisions. Similar to Alpha, FinChat is a finance-focused generative AI tool powered by ChatGPT. It generates accurate answers to questions about public companies and investors by incorporating reasoning, sources, and data. Unlike conventional ChatGPT, FinChat is trained on up-to-date financial data, including earnings-call transcripts; quarterly and annual reports; and exhaustive business key performance indicators (KPIs), with their respective sources. Users can
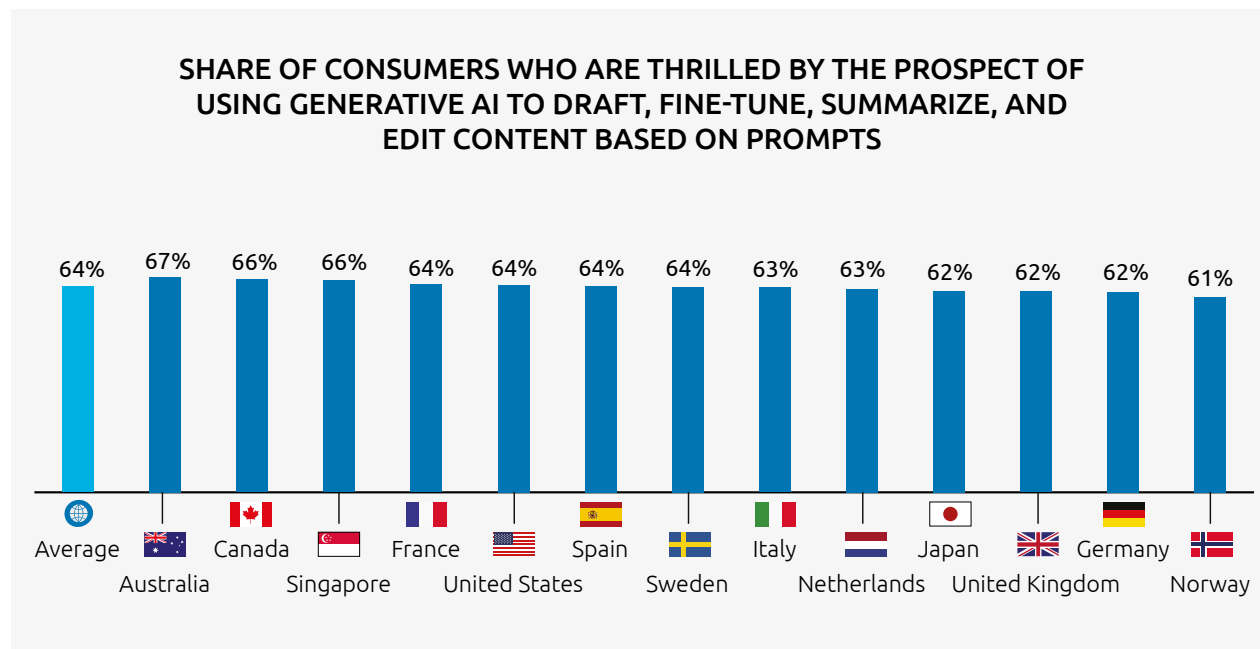
Consumers are excited about the prospect of using generative AI to draft, fine-tune, summarize, and edit content based on prompts

submit up to 10 free prompts per day, with the option to upgrade to five times the usage and early access to the frequently produced updates.[7]

We found that 53 percent of consumers trust generative-AI-assisted financial planning. Here, Singapore has the highest level of trust (55.4 percent), while, across age groups, younger generations, particularly Gen Z, have a higher level of trust (55 percent) than do older generations (Millennials (52.5 percent), Gen X (48.8 percent), baby boomers (46.9 percent)).

"Clear communication of limitations and potential risks, along with thorough testing and guardrails, are essential for ensuring a safe and beneficial user experience with generative-AI-powered financial advice. Transparency and openness about the model's capabilities are key to building trust with users and providing effective financial advice," explains a senior executive from the banking industry.

SHARE OF CONSUMERS WHO ARE THRILLED BY THE PROSPECT OF USING GENERATIVE AI TO DRAFT, FINE-TUNE, SUMMARIZE, AND EDIT CONTENT BASED ON PROMPTS

Average	Australia	Canada	Singapore	France	United States	Spain	Sweden	Italy	Netherlands	Japan	United Kingdom	Germany	Norway
64%	67%	66%	66%	64%	64%	64%	64%	63%	63%	62%	62%	62%	61%

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023, N = 8,596.

The health benefits of generative AI

Globally, 67 percent of consumers believe they could benefit from receiving medical advice from generative AI (see Figure 12). Sixty-three percent of consumers are excited about the possibilities of generative AI

bringing faster and more accurate drug discovery and development. However, it is also important to assess the benefits from a healthcare provider's perspective.

Microsoft recently unveiled plans to embed generative AI into clinical software from Epic, the biggest hospital electronic healthcare record (EHR) vendor in the US. Microsoft and Epic went live with the first sites integrating GPT into EHR workflows to draft automatic replies to patient messages. The joint venture is also applying generative AI

tools to Epic's hospital database, allowing laypeople to ask general questions to the AI, rather than requiring a data scientist to query specific data.[8]
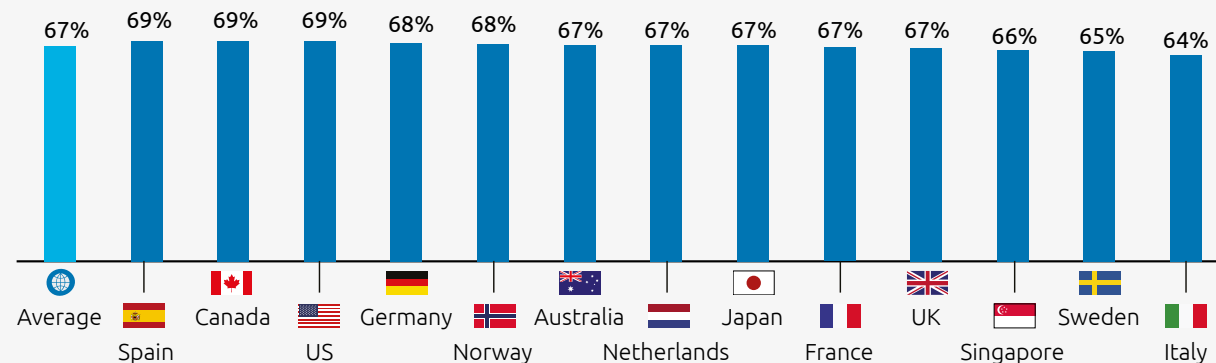
Healthcare startups such as Pittsburgh-based Abridge AI, whose product facilitates the composition of case notes after the examination of patients, and San Francisco-based Syntegra, which uses generative AI to create realistic copies of patient data for research, say they have developed safe, accurate healthcare applications for generative AI.[9]

Fig.12

Consumers believe medical opinions from generative AI would be helpful

A recent study compared responses to real-world health questions from physicians and ChatGPT. A panel of licensed healthcare professionals, blinded to the source of the response, preferred ChatGPT's responses 79 percent of the time, which were rated as higher-quality and more empathetic than those from physicians.[10]

Younger age groups tend to be slightly more enthusiastic about generative-AI healthcare advice. Specifically, Gen Z and Millennials reported the highest agreement (68 percent), while Gen X and baby boomers had 65 percent and 63 percent agreement, respectively.
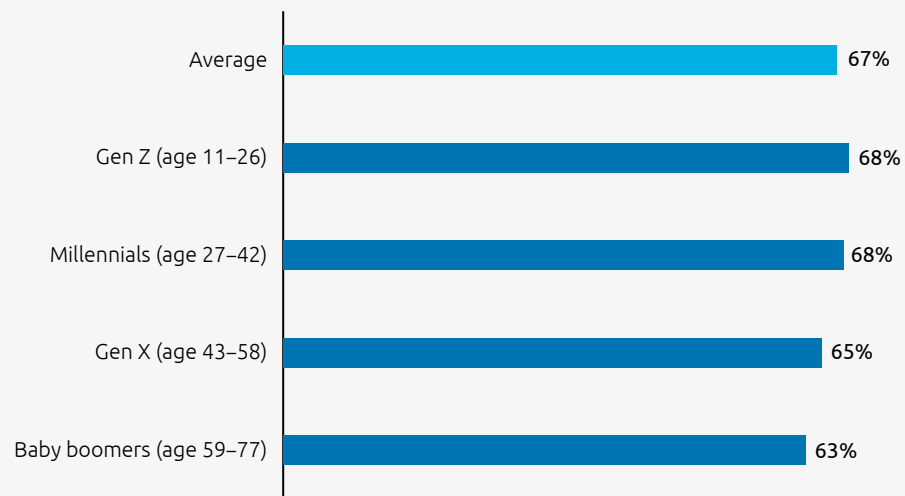

SHARE OF CONSUMERS WHO THINK MEDICAL ADVICE FROM GENERATIVE AI WOULD BE HELPFUL (BY COUNTRY)

Average	Spain	Canada	US	Germany	Norway	Australia	Netherlands	Japan	France	UK	Singapore	Sweden	Italy
67%	69%	69%	69%	68%	68%	67%	67%	67%	67%	67%	66%	65%	64%

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N=8,596.

Belief that medical opinions or suggestions from generative AI are helpful tends to be slightly more common in younger age groups

SHARE OF CONSUMERS WHO THINK MEDICAL OPINIONS OR SUGGESTIONS FROM GENERATIVE AI WOULD BE HELPFUL (BY AGE)

- Average — 67%
- Gen Z (age 11–26) — 68%
- Millennials (age 27–42) — 68%
- Gen X (age 43–58) — 65%
- Baby boomers (age 59–77) — 63%

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 8,596.

70%

of baby boomers will seek advice on personal relationships or life/career plans from generative AI tools

Fig.14

Baby boomers are most likely to seek advice from generative AI tools on personal relationships or life/career plans

Consumers will also consider consulting generative AI on relationship issues

Sixty-six percent of consumers would seek advice from a generative AI tool on personal interactions or relationships (work, friendships, romantic relationships) or life/career plans. Consumers from Australia (68 percent) are more open to seeking advice from generative AI tools on personal relationships or life/career plans, while consumers from Sweden (61 percent) are least open in this respect. Surprisingly, baby boomers are more likely (70 percent) to seek advice on personal relationships or life/career plans from generative AI tools than respondents in younger generations (see Figure 14).

SHARE OF CONSUMERS WHO WOULD SEEK ADVICE FROM GENERATIVE AI TOOLS ON PERSONAL INTERACTIONS/RELATIONSHIPS (BY AGE)

Category	Value
Average	66%
Baby boomers (age 59–77)	70%
Gen X (age 43–58)	65%
Gen Z (age 11–26)	65%
Millennials (age 27–42)	65%
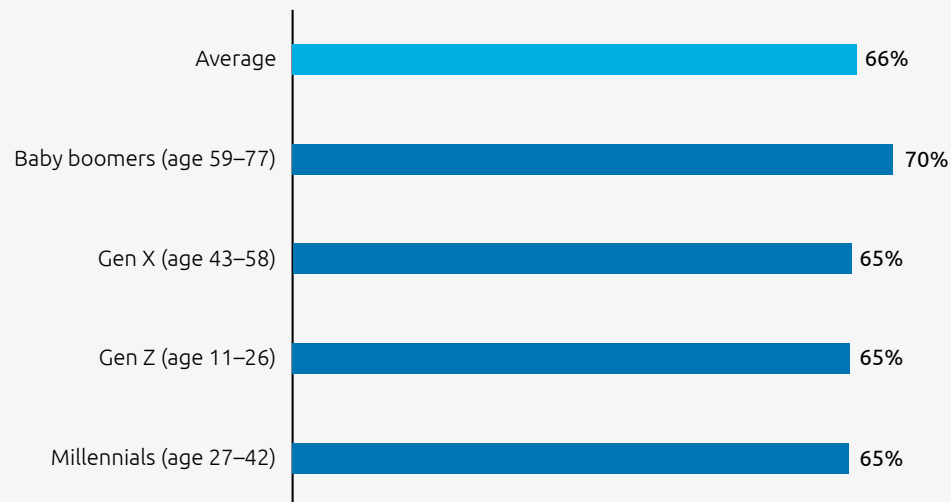
Source: Capgemini Research Institute, Generative AI, consumer survey, April 2023, N = 8,596.

There has been a 25 percent decline in partnered relationships over the past 30 years in the US.[11] Amorai is a new health and wellbeing organization with a mission to help 1 billion people master the skill of human connection. Its first product is an AI relationship-coaching app targeting young adults aged 18–30. The app offers personalized coaching exercises, primarily crafted and curated for Gen Z, and builds on large language model (LLM) technology.[12]

Trust in generative AI needs introspection

A high level of consumer trust in generative AI can leave consumers vulnerable to the dangers posed by fake news, deepfakes, cyberattacks, and plagiarism. The high trust may be due to low public awareness of risks, the perception that legislation protects users,

and limited incidences of AI violating that trust. A deeper psychological angle to this is the tendency to anthropomorphize AI. Andrew Ng, founder of deeplearning.ai, comments: *"The generative AI industry is so young that many companies are still figuring out best practices. The ethical questions and concerns about bias and generating problematic speech need to be taken very seriously. We should be clear-eyed about the good and the innovation that this is creating, while also being clear-eyed about the possible harm."[13]*

Bias in AI dates back several decades. In 1988, a British medical school was found guilty of discrimination due to bias in its computerized applicant interviews. Despite its high accuracy in replicating human decision-making, the program exhibited prejudice against women and individuals with non-European names.[14] Furthermore, research conducted in 2018 has shown that training natural-language-processing (NLP) models on historical news articles can lead to the perpetuation of gender stereotypes.[15]

Researchers at Stanford University have developed a chat-style interface, HealthGPT, which integrates ChatGPT and the Apple Health app on iPhones. HealthGPT can answer a wide range of personal-health- and wellbeing-related questions and provide detailed information on various body metrics, such as sleeping habits, step count, heart rate, and exercise minutes. It also provides tailored advice to help users achieve their fitness goals. The developers nonetheless acknowledge that the model may not always provide accurate information, and caution users to consult HealthGPT "at their own risk."

There was a 531-percent increase in searches related to incorrectness of AI in the period December 2022 – March 2023 (compared to the period Aug 2022 – Nov 2022). Organizations need to educate consumers on the potential issues around generative AI.

Consumers are not aware of the potential harm to society through generative AI

Generative AI has been used to create fake news stories. Recently, a man in China was arrested for allegedly using ChatGPT to fabricate a fake news article about a non-existent train crash that supposedly led to the deaths of nine construction workers in Gansu province.[16] As the 2024 US presidential election approaches, experts are warning of the potential of generative AI to enable disinformation campaigns, including the use of robotic calls to spread incorrect ballot information; deepfake videos of candidates engaging in criminal or offensive acts; AI-generated fake media depicting events that never occurred; and false news reports claiming that candidates have dropped out of the race to manipulate voting patterns.[17] Nevertheless, almost half (49 percent) of consumers are unconcerned about fake news stories created by generative AI. Millennials (51 percent) are less likely to be concerned in this regard than other age

groups (Gen Z: 47.8 percent; Gen X: 49.3 percent; baby boomers: 46.0 percent), possibly owing to low consumer risk-awareness.

Fifty-nine percent of consumers are unconcerned about the possibility of malicious actors using deepfakes to create harmful content to target individuals or specific sections of society. Millennials (59.5 percent) are less likely to be concerned about deepfakes created by generative AI than are other age groups (Gen Z: 58.8 percent, Gen X: 55.8 percent, baby boomers: 58.7 percent). Highlighting the risks of generative AI, Alphabet and Google CEO, Sundar Pichai warns: *"There have to be consequences for creating deepfake videos that cause harm to society. We would need societal regulations to think about how to adapt."*[18]

AI pioneer Geoffrey Hinton has issued a chilling warning of the dangers of AI chatbots, stating that they could be easily manipulated by malicious actors. This could lead to the spread of misinformation on an unprecedented scale, making it almost impossible for people to distinguish fact from fiction as AI-generated content floods the internet.[19]

Despite the potency of cyberattacks and deepfakes, consumer awareness is low

Bad actors can now use generative AI applications to generate a personalized spear-phishing message based on an organization's marketing materials. This could fool even consumers who have been well-trained in email awareness. Similarly, an AI bot could call a consumer using a deepfake voice of a relative or friend, requesting personal information. In 2019, an AI-generated voice deepfake was used to scam a UK-based energy firm's CEO out of $243,000. The fraudster impersonated the CEO's boss, exploiting subtle accent and vocal characteristics to deceive the victim. This incident is the first documented case of an AI-generated voice deepfake being used in a scam.[20][21] We found 34 percent of consumers are worried about phishing attacks that use generative AI technology to deceive individuals. Consumers from Sweden have the highest (38 percent) level of concern, followed by those from Italy (37 percent). We also found that only 30 percent of consumers are worried about the use of generative AI for the illegal impersonation of individuals with the intention to commit fraud or engage in other criminal activities.

Eric Horvitz, Chief Scientific Officer at Microsoft, has highlighted the challenges posed by two types of deepfakes: interactive and compositional. Interactive deepfakes enable realistic impersonation with interactive behaviors, while compositional deepfakes integrate synthetic content into disinformation campaigns, creating persuasive fabricated histories tied to real-world events. Horvitz warns: *"Unprecedented tools can be used by state and non-state actors to create and distribute persuasive disinformation."*[22]

Consumers are not aware of ethical concerns about generative AI

Ethical data sourcing for generative AI tools is a key area of concern. Getty Images has banned the upload and sale of illustrations generated using AI art tools such as DALL-E, Midjourney, and Stable Diffusion.[23] A group of artists have filed a lawsuit against Stability AI,Midjourney, and artist portfolio platform DeviantArt, alleging infringement of artists' rights. They claim that these organizations trained their AI models on 5 billion images scraped from the internet without the explicit consent of the original artists.[24] We found 33 percent of consumers are worried about the non-recognition/non-payment of artists/contributors whose work is used in the training of generative AI algorithms. Spawning's Source+ platform gives artists the ability to control the use of their work as training data for AI by offering the choice to opt in or out. Spawning has additionally launched Have I Been Trained, a

website that enables artists to verify whether their work is included in training datasets at no cost.[25]

Also, a class-action lawsuit has been filed in US federal court on behalf of a proposed class of millions of GitHub users who want to challenge the legality of GitHub Copilot (and a related product, OpenAI Codex, which powers Copilot). The suit has been filed against a set of defendants including GitHub, Microsoft (owner of GitHub), and OpenAI.[26] Twenty-seven percent of consumers are worried about the use of generative AI algorithms to copy/clone competitors' product designs/formulas.

Countries and organizations that embrace generative AI may leap ahead of their peers, leading to a digital divide between those who can afford generative AI tools and those who cannot. However, only 26 percent of respondents perceive this as a danger.

*Generative AI tools such as ChatGPT are becoming the new go-to for **70%** of consumers when it comes to seeking product or service recommendations, replacing traditional methods such as search*

Transformer model "hallucinates" facts and makes reasoning errors

AI hallucination: Causes and characteristics

According to the GPT-4 Technical Report published by OpenAI, GPT-4 tends to "hallucinate," (i.e., "…produce content that is nonsensical or untruthful in relation to certain sources"). GPT models may hallucinate as a result of inherent bias, lack of real-world understanding, or limitations in their training data. One major cause of hallucination is compression; for example, a GPT-2 model (774 million parameters) compresses knowledge learned from 40 GB of text to a model that fits in about 3 GB of model weight (13x factor). Along with compression, hallucination may also result from limitations or the inherent bias of the training data, as well as a lack of real-world understanding on the part of the LLM.

These hallucinations result in outputs that may appear reasonable but are either factually incorrect or irrelevant to the context.[27] While hallucination specifically refers to content that is factually incorrect or nonsensical, misalignment may occur due to a discrepancy or lack of agreement between different elements, such as human expectations or biases. This misalignment can cause the generated output to deviate from what the user desired or intended to receive. This could also be used to get unexpected or "impossible" outcomes, especially in the creative field, encouraging "blue-sky thinking" and "out-of-the-box" ideas. Bill Franks, Director of the Center for Data Science and Analytics at Kennesaw State University, comments: *"… the dirty little secret is … all outputs from generative AI processes, regardless of type, are effectively hallucinations."*[28]

As part of a research study, ChatGPT was asked to generate a list of legal academics found to have been guilty of sexual harassment. The list produced by the chatbot included the name of a law professor, who it claimed to have been accused of making sexually suggestive comments and inappropriately touching a student during a class trip to Alaska. However, the alleged incident never took place. The chatbot even cited a non-existent article in The Washington Post as its source.[29] This highlights how generative AI models can actively misrepresent facts and fabricate primary sources to support their claims.

A senior executive from the banking industry warns: *"GPT models can be vulnerable to 'hallucinations' caused by a rare combination of words in the input that break the logic of their programming. As users of these models, we need to be aware of the potential limitations of and biases in the technology."*

During its first demo, Google's AI chatbot Bard made a factual error by incorrectly stating that the James Webb Space Telescope took the very first pictures of a planet outside our solar system. However, astronomers swiftly pointed out that the first image of an 'exoplanet' was, according to NASA, captured in 2004.[30]

Implications for society

There are multiple implications for society at large.

• Currently, a significant 73 percent of consumers trust content generated by AI. This trust brings risk, however, especially when the AI model is capable of hallucinating in areas in which the user has limited knowledge.
• Alphabet CEO Sundar Pichai acknowledges, *"No one in the field has yet solved the hallucination problems. All models do have this as an issue."*[31] Even researchers within tech companies express concerns about the potential overreliance on these systems for critical areas such as medical and legal advice, as well as other decision-making processes.[32]
• The answers generated by AI language models, although false, often appear plausible due to their ability to blur and conflate information regarding people, events, and ideas.[33]
• Furthermore, as language models are integrated into various systems and become more commonly used, the tendency to hallucinate can contribute to the overall degradation of information quality and further erode trust in the accuracy of information.[34]

03

HOW WILL GENERATIVE AI TRANSFORM THE WAY CONSUMERS SEARCH FOR AND BUY PRODUCTS?

A large minority (43 percent) of consumers would like to see a broad implementation of generative AI across their interactions with organizations. Andy Jassy, CEO of Amazon, says: *"We have been working on our own large language models for a while now; we believe they will transform and improve virtually every customer experience and will continue to invest substantially in these models across all of our consumer, seller, brand, and creator experiences."* [35]

Zalando, a German e-commerce platform, is set to implement generative AI to revolutionize the online shopping experience. The company plans to use generative-AI-powered search engines to assist customers in finding products for specific occasions. Soon, Zalando will introduce on its app and web platforms a beta version of a fashion assistant powered by ChatGPT, elevating the overall shopping experience.[36] At the Shoptalk Europe conference in Barcelona, in 2023, Heikki Haldre, co-founder of AI company Miros, presented the Miros wordless search engine. Using a search for a Bavarian dirndl dress as an example, Haldre showcased the engine's recognition of browsing patterns, retrieving highly relevant fashion items in under 60 seconds.[37]

Generative AI elevates the consumer experience

Experience is a key factor in generative AI interactions with consumers; 62 percent of consumers are comfortable with the implementation of generative AI in marketing and advertising, provided it doesn't negatively impact their overall experience. Consumers from Norway are most at ease in this respect (69 percent).

Swiss food and beverages multinational Nestlé utilized a generative-AI-enhanced version of Vermeer's 360-year-old painting, "The Milkmaid," to promote its La Laitière dairy brand. By using a generative-AI-powered "outpainting" feature, Nestlé expanded the borders of the picture and added new characters and significant detail to the original oil-on-canvas artwork.[38]

Half (50 percent) of consumers are excited by the use of generative AI for highly immersive and interactive consumer experiences. US food company Heinz used the generative-AI-powered image generator to get AI's interpretation of "ketchup." Many of the definitive images it produced resembled bottles of Heinz products. Consumer fans of the brand submitted ketchup image prompts that were turned into social media and print ads, resulting in the first-ever ad campaign with visuals generated entirely by AI.[39]
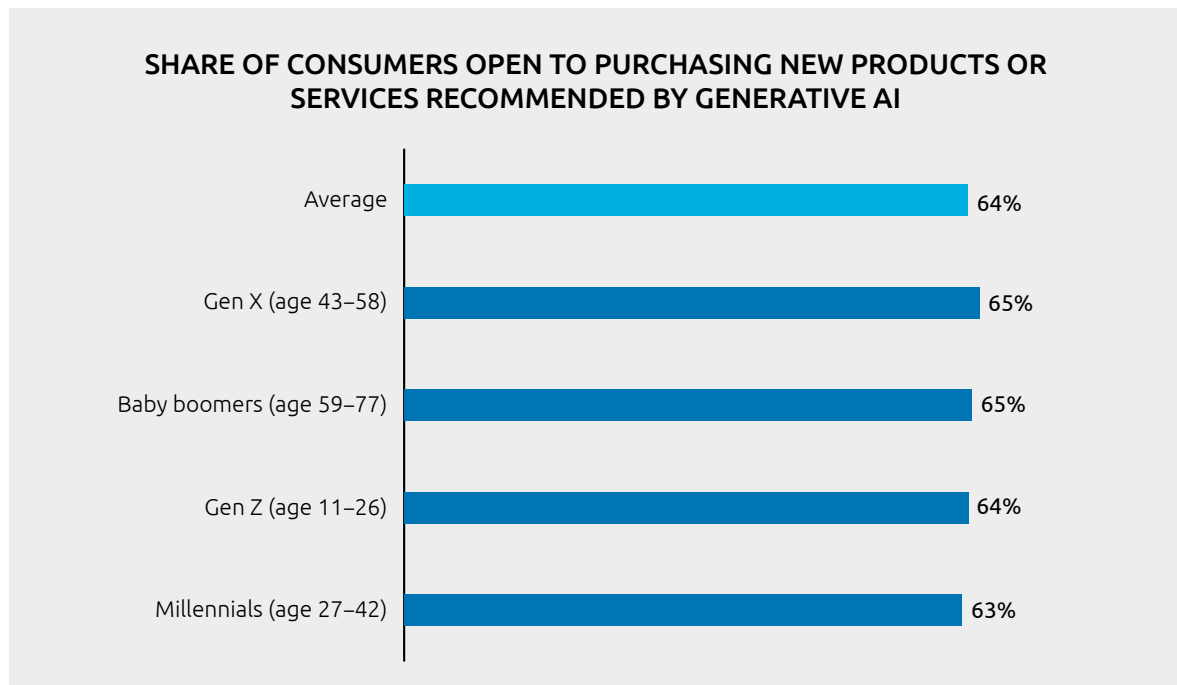
Fig.15

Consumers in all age groups are open to purchasing new products recommended by generative AI

Influence of generative AI on consumer-purchase decisions

Consumers are more receptive to using generative AI for purchase decisions, as it can offer recommendations; 64 percent are open to purchasing new products or services recommended by generative AI. The Netherlands, Canada, and Sweden have the highest percentage of consumers open to this, at 67 percent. There is no significant variation between the different age groups (see Figure 15). Generative AI tools such as ChatGPT are becoming the new go-to for 70 percent of consumers when it comes to seeking product or service recommendations, replacing traditional methods such as search. This is consistent across all age groups.

Sixty-seven percent of consumers are positively anticipating generative AI's ability to offer customized fashion and home-décor recommendations. Stitch Fix, the apparel retailer that already uses AI to recommend specific clothing to customers, is experimenting with DALL-E 2 to represent its products visually, based on customer preferences in terms of color, fabric, and style. For instance, if a customer requests a pair of "high-rise, red, stretchy, skinny jeans," DALL-E 2 will generate a composite image based on these qualities to aid a stylist in finding a comparable product in Stitch Fix's inventory.[40]

SHARE OF CONSUMERS OPEN TO PURCHASING NEW PRODUCTS OR SERVICES RECOMMENDED BY GENERATIVE AI

Category	Percentage
Average	64%
Gen X (age 43–58)	65%
Baby boomers (age 59–77)	65%
Gen Z (age 11–26)	64%
Millennials (age 27–42)	63%

Source: Capgemini Research Institute, Generative AI consumer survey, April 2023, N = 8,596.

Consumers are willing to pay the same amount for generative-AI-enabled services

While consumers are willing to pay the same amount for generative-AI-enabled services, this currently applies only to specific areas, such as generative-AI-written content and generative-AI-produced medical opinions (both at 69 percent).

However, 30 percent of consumers are willing to pay more for generative-AI-powered tax-preparation services for individuals and virtual generative-AI-powered travel agents, for instance. april , an AI-powered suite of embedded tax products, harnesses generative AI to automate the translation of tax laws into software code, a process historically performed by humans.[41]

- 33 percent of consumers from Japan agreed to pay more compared to what they are paying now for tax-preparation services
- As age increases, willingness to pay more for generative-AI-powered tax-preparation services decreases; 32 percent of Gen Z are willing to pay more compared with 23 percent of baby boomers

The generative-AI-augmented life of a consumer

As the availability of generative AI tools explodes, they are becoming part of the everyday life of the consumer. Microsoft is already integrating generative AI capabilities into its products, as highlighted by CEO Satya Nadella: *"Every Microsoft product will have some of the same AI capabilities to completely transform the product."*[42] The software giant has integrated generative AI into its Bing search engine and has also embedded Copilot in widely used Microsoft 365 apps, such as Word, Excel, PowerPoint, Outlook, Teams, and much more.
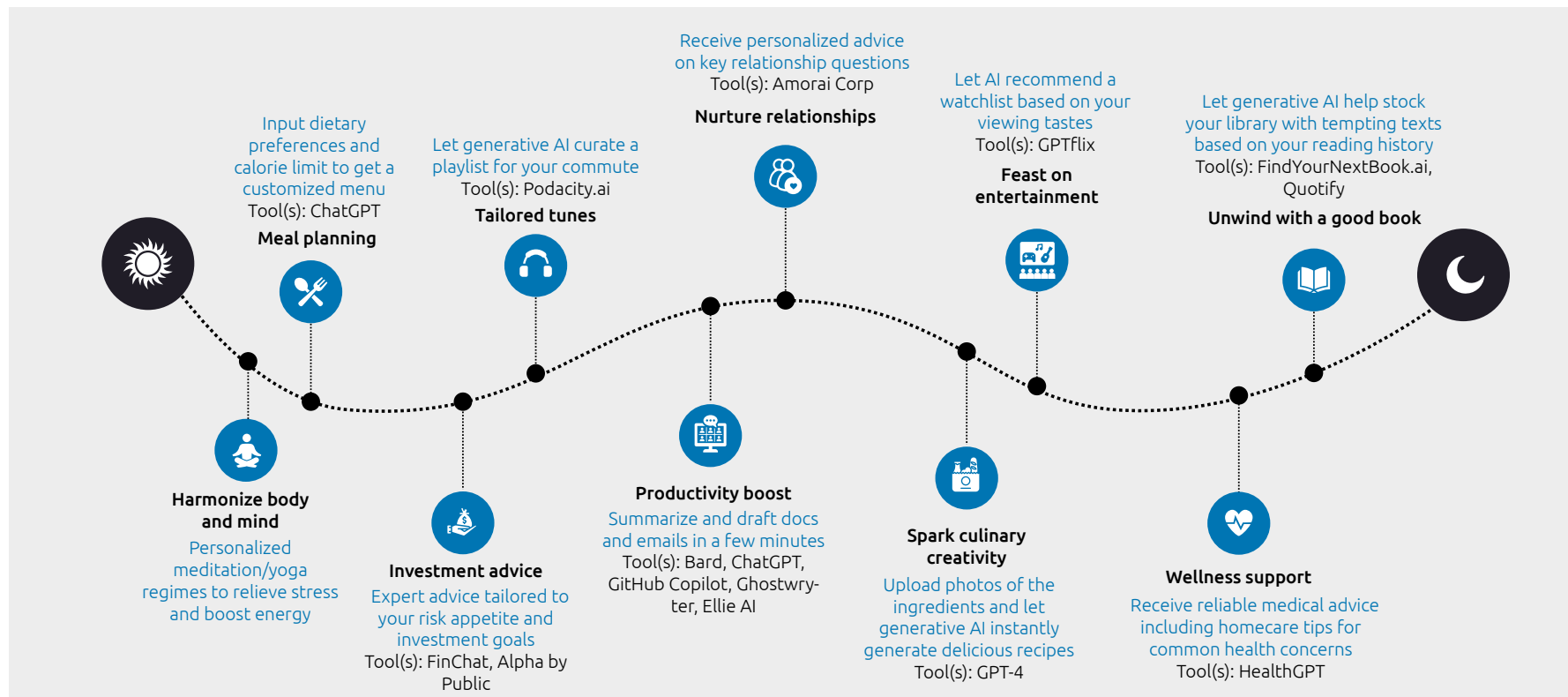
Another innovative addition is Business Chat, which leverages the power of LLMs, Microsoft 365 apps, and user data. For instance, with Business Chat, users can now provide natural-language prompts to generate status updates.[43] Consumers can expect access to a wide range of tools and applications through unified or distributed platforms. A unified platform, provided by a single entity, will offer convenient access to diverse generative AI functionalities. Alternatively, companies focusing on niche areas such as generative AI for gardening, education, or travel may emerge, delivering tailored solutions to meet specific domain needs. Whether through unified or distributed platforms, consumers will benefit from enhanced experiences and targeted solutions.

Consumers may transition to using smart, connected devices that come equipped with a generative-AI-powered personal assistant. This shift would offer a seamless and intuitive user experience, as these assistants would leverage generative AI capabilities to provide personalized support and enable consumers to have a more interactive and intelligent relationship with their devices.

Fig.16

A representation of how generative AI simplifies and enriches the everyday life of a consumer

Receive personalized advice on key relationship questions
Tool(s): Amorai Corp
Nurture relationships

Let AI recommend a watchlist based on your viewing tastes
Tool(s): GPTflix
Feast on entertainment

Let generative AI help stock your library with tempting texts based on your reading history
Tool(s): FindYourNextBook.ai, Quotify
Unwind with a good book

Input dietary preferences and calorie limit to get a customized menu
Tool(s): ChatGPT
Meal planning

Let generative AI curate a playlist for your commute
Tool(s): Podacity.ai
Tailored tunes

Harmonize body and mind
Personalized meditation/yoga regimes to relieve stress and boost energy

Investment advice
Expert advice tailored to your risk appetite and investment goals
Tool(s): FinChat, Alpha by Public

Productivity boost
Summarize and draft docs and emails in a few minutes
Tool(s): Bard, ChatGPT, GitHub Copilot, Ghostwriter, Ellie AI

Spark culinary creativity
Upload photos of the ingredients and let generative AI instantly generate delicious recipes
Tool(s): GPT-4

Wellness support
Receive reliable medical advice including homecare tips for common health concerns
Tool(s): HealthGPT

Source: Capgemini Research Institute Analysis.

04

CONSUMER GUIDELINES FOR ORGANIZATIONS ON THEIR GENERATIVE AI JOURNEYS

Organizations must ensure customer trust in AI is not misplaced in terms of quality, lack of bias, privacy, and safety. Based on our interactions with industry experts, our research, and our expertise, we recommend the following guidelines for organizations for their consumer-facing generative AI initiatives.

Organizations: Lean on generative AI for brand engagement

When consumers rely on generative AI tools for answering their questions or for recommendations, how should organizations change their marketing and advertising strategies? As generative tools proliferate, what brand-engagement strategy should they implement? There will be more such questions for organizations.

Fig.17

A five-point framework for organizations working on consumer-facing generative AI initiatives

Organizations
- Lean on generative AI for newer ways of brand engagement
- Design safe and unbiased systems
- Educate consumers

Consumers
- Use the tools cautiously

Regulators
- Strengthen legislation to protect consumers

Build human oversight
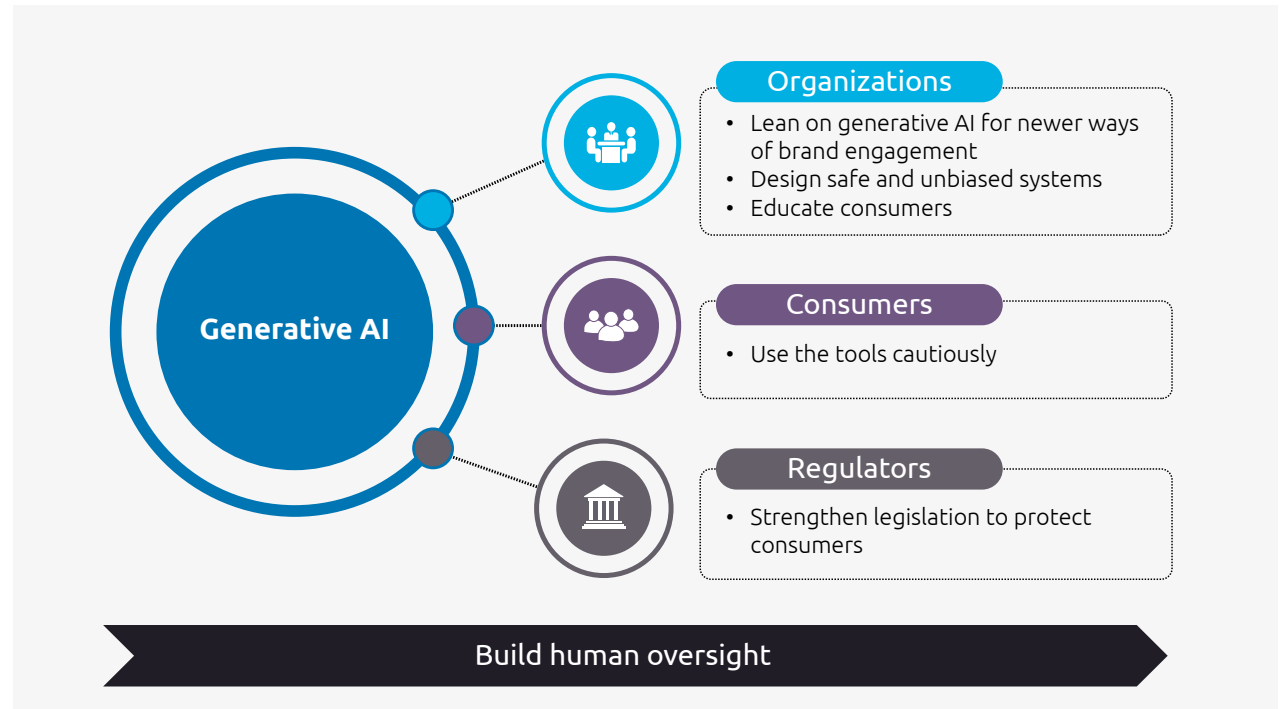
Source: Capgemini Research Institute Analysis.

- Sales – generative AI can be used to streamline sales operations. For example, Outreach, a sales-execution platform, auto-generates relevant mail copy based on prior conversations between sellers and buyers.[44]
- Marketing – the potential of generative AI is already clear. Jasper AI, for instance, can create web copy, ads, and even social media posts.[45] As seen in the Heinz example (above), generative AI visuals can be used in ad design.
- Beyond these, organizations have other opportunities: a GPT-based brand avatar that can interact with consumers over their lifetime, acting as the consumer's personal representative with the organization, for instance.

A critical question that organizations must look into is how the penetration of generative AI will influence their customers' buying journeys, and even the larger business model. At the same time, organizations must also mitigate the risks of misuse of their generative AI tools in ways that can harm the company's reputation.

Organizations: Design safe and unbiased systems

Understand the various risks of generative AI

Organizations that are using the various generative models available on the market need to be aware of the risks:

- **Inherited risk:** The underlying datasets that have been used to train the model are not usually made available to downstream players; this means these players inherit the risks associated with these datasets without the means to detect/address them
- **Intellectual property:** Datasets may be copyrighted or have restricted licenses; output from the generative AI tools that regurgitates such data may lead to legal issues for downstream players

- **Correctness:** As explained above, generative AI can hallucinate and appear confident in its answers
- **Bias:** While this is not an issue pertaining to generative AI in particular, output from the tools can reflect biases in the training data
- **Data leakage:** Organizations interested in creating their own generative AI models from scratch should remember that it is possible for these tools to leak out confidential data through deliberate prompts

There are other issues pertaining to privacy of user data, the carbon footprint of using the models, and ethical concerns. In light of these pertinent risks, we offer some recommendations for organizations below.

Focus on developing reliable and trusted systems

Forty-seven percent of organizations worry about inherent bias from the underlying data used to train generative AI programs. The bias may increase when we consider variations due to language, culture, and local context.

Training data plays a critical role in addressing this bias. In our research, we found that sixty-one percent of organizations are concerned that inconsistent thoroughness in training sets across geographies and cultures can impact the sensitivity of the generated content, leading to inaccuracies and biases. Marketplaces such as Defined.ai provide ethically sourced training datasets that address at least a part of the problem.[46] Organizations must improve their training-data quality and be conscious of data sources. Incorporating advanced NLP techniques to understand user intent and provide relevant answers will be the key to achieving this.

The generational AI applications must also indicate when human input or oversight is required (e.g., when providing medical diagnoses or legal advice). A senior executive from a global cloud-service provider explains: *"So much of the concern with generative AI tools revolves around the authenticity and veracity of the underlying datasets. Organizations developing these tools need to be more careful about the raw data and intellectual property they use. We need appropriate training data that meets a certain standard."*

Another key factor is carbon footprint. The training of GPT-3 has resulted in over 550 tons of carbon emissions.[47] While not every organization needs to train a model, integrating generative AI into operations requires much greater computing power than do traditional operations. It is important for organizations to consider and plan for this to reduce their overall environmental footprints.

Design for safety

Organizations must design guardrails using robust blocklists. Forty-six percent of organizations are concerned about the lack of clear guidelines. Recently, a young Belgian man committed suicide after talking to a chatbot for several weeks. According to the text conversations, the chatbot not only failed to dissuade him but encouraged him in his suicidal thought pattern.[48]

In this context, organizations must educate the consumer about the safe use of generative AI applications. The language model outputs must be used with caution, especially in sensitive contexts. The University of Adelaide has established a clear protocol to safeguard sensitive information and prevent data breaches

70%

percent of organizations are reviewing open-source generative AI models for the reliability of data sources and adherence to data-privacy laws and regulations.

when using generative AI such as ChatGPT. Guidelines include not sharing personal data, health information, passwords, commercial data, and intellectual property. They also advise against using university email addresses and recommend disabling the "Chat History & Training" feature to prevent data logging and potential model training.[49]

Seventy-three percent of organizations are establishing policies for the use and sharing of internal information on generative AI models. This is critical to ensuring confidential company information is not available to competitors or the public. A telecom company executive comments: *"There are concerns around using generative AI tools for professional activities, particularly in relation to the model's lack of training on internal knowledge bases, resulting in the potential for fake or incorrect information. The 'black-box' nature of the model also makes it difficult to understand its knowledge sources and design, and there are issues related to intellectual property and data management."*

Strengthen the privacy and security of systems

Multiple national governments have expressed concern about the privacy of consumer data collected during interactions with generative AI applications. Italy has already banned ChatGPT over privacy concerns (later restoring access after OpenAI implemented the required changes).[50] Three-quarters (75 percent) of organizations identify the lack of data privacy and protection as a major concern that prevents them from realizing the full potential of generative AI. Moreover, 70 percent of organizations are reviewing open-source generative AI models for the reliability of data sources and adherence to data-privacy laws and regulations.

Organizations: Educate consumers on the reliability of the output

It is important that organizations manage consumer expectations in terms of reliability of output. Sometimes the output may not be correct or may be influenced by factually incorrect materials available on the internet. Ensuring correct disclaimers and warnings around the authenticity and correctness of the output is, therefore, also essential. Further, organizations must emphasize to consumers that these tools are not equivalent to humans. While they may choose to add "human" features to these AI systems, such as a human voice (Siri, Alexa for voice assistants), a human name, or even a human avatar, the tools and systems are still an automation.

Build consumer trust in AI systems

The rapid adoption of generative AI has raised expectations, often above current technical limitations. While more generic tasks can be streamlined, there remains significant room for improvement and

some fields (e.g., psychiatry) where the technology may never match human capabilities. It is important to clarify upfront to the consumer what the tool can and cannot do, and notify them proactively when they are talking to AI technology. It is also important to seek consumer feedback and strive continuously to improve systems. Moreover, consumers are reassured when they are provided with access to the training sources for generative AI; 73 percent of consumers would be convinced of the rightful use of generative AI if they could access information on all data sources. This is also a concern for organizations using these generative AI systems; 51 percent of executives consider the lack of clarity on data underlying generative AI programs to be a significant concern.

The head of AI at a meal-kit company sums the situation up aptly: *"We cannot blindly trust AI-generated results, especially in high-risk areas. It's crucial to verify the answers and take precautions. As a society, we need to provide proper education and awareness about the potential risks and benefits to ensure consumer trust."*

Consumers: Use the tools cautiously

The adoption numbers of generative AI tools are certainly impressive. In this second section, our research has highlighted the high levels of satisfaction, as well as trust, that consumers have in generative AI. It is, however, important for consumers to take the following precautions:

- **Independently verify factual information:** Cross-check the output with other sources to ensure that it is not a result of hallucination
- **Seek expert help for high-risk situations:** Consumers must remember that these tools cannot replace experts such as physicians – at least, not yet. This is particularly important in cases where there can be a clear yes/no. For example, a person either has cancer or they don't, and if they arrive at the wrong conclusion based on what a tool tells them, the consequences can be severe. Experts can provide the right kind of guidance after looking at the consumer's medical history, which may not be the case with generative AI tools
- **Update themselves on copyright issues:** When consumers use generative AI tools and create AI art or other works, who owns these creations? In the US, the US Copyright Office has released its policy statement regarding the works created using generative AI. Their guiding principle is that copyright only protects creations made by humans.[51] The agency is now requiring its applicants who submit their works for copyright to declare if AI was used in any part of the work
- **Be aware of phishing scams:** The unfortunate by-product of these tools is their ability to allow even an average scammer to create and act out scams such as impersonating a relative asking for funds. As the adoption of these tools increases, the possibilities of different types of scams and greater scam volume will only increase. Users beware!

Regulators: Strengthen legislation to protect consumers

Regulators, copyright boards, and consumer-protection agencies have a rough and uncertain road ahead of them. The US Copyright Office, for example, initially granted copyright for an AI-created work and then cancelled its original certification after a review.[52] A few ways to tackle the challenges include:

- **Requesting disclosures:** Regulators can require developers to disclose whether and how the tools are following data-privacy laws
- **Revisit their policies:** As the line between human-created and AI-generated content blurs, copyright boards will need to figure out their stance on what can be granted a copyright and also set guidelines to determine whether a particular work has been generated by AI and to what extent
- **Establish accountability:** If a consumer is impacted by a fake image generated through these tools, which parties will be liable? Is it the user that created the fake image, the developer of the generative AI tool, or the social media platform that hosted the original image?

- **Improve user control:** Regulators can require developers to give better control to users, allowing them to opt in and out of data collection
- **Improve user education:** Regulators can also require developers to improve user awareness
- **Engage with developers, academics, and other stakeholders:** The hardest job for regulators is figuring out how to safeguard consumer interest, protecting their privacy while not impeding progress; to achieve these objectives, it helps to engage with the developers and leading academics to discuss challenges and determine the best way forward

Build human oversight

Human oversight should remain an integral part of the development of generative AI systems and tools. Humans can identify biases in the underlying training dataset, review outputs, and take steps to mitigate them. Human oversight can also help in improving the quality, reliability, and safety of the systems. Further, humans can ensure compliance with data-privacy regulations and ethical guidelines. For consumers, human oversight means relying on experts for critical advice, such as in medical or legal areas, rather than simply believing what the tools say.

Conclusion

Generative AI has seen massive consumer adoption across age groups, geographies, and income levels. The majority of consumers are aware of it and more than half are using it. Even more interesting – and concerning – is the high level of trust consumers place in the output from generative AI. The ease of using these tools and the simplicity of the output mean that generative AI has the potential to transform consumer search and online purchase behavior. As consumers experiment with generative AI across multiple formats, it is important to remember that this is a nascent technology that is not yet ready to operate autonomously in all scenarios. Organizations have a number of ways to leverage generative AI to influence their customers and, at the same time, they must monitor evolving consumer behavior in terms of implications for marketing and larger business operations. Organizations developing or using generative AI tools must ensure that the outputs are unbiased, reliable, safe, private, and secure. Regulators do have a critical role in shaping policies as the application landscape rapidly evolves. Human oversight is a key foundation for developers and consumers to address together the different challenges generative AI poses.

Follow-on report teaser

We will release a follow-on report that delves exclusively into the transformative potential of generative AI for organizations across multiple industries, such as automotive, consumer products, retail, financial services (banking and insurance), telecom, energy and utilities, aerospace and defense, high-tech, industrial equipment manufacturing, and pharma and healthcare. In this forthcoming publication, we will explore how generative AI can reshape businesses, highlighting industry-specific use cases of generative AI, and examining adoption rates. We surveyed 1,000 executives from unique organizations with more than $500 million in annual revenue across 13 countries for the report, which will be launched later in 2023.

Research methodology

- We surveyed 10,000 consumers over the age of 18 in 13 countries across the US, Europe, and Asia-Pacific. The global survey took place in April 2023. The demographic details of consumers are below:
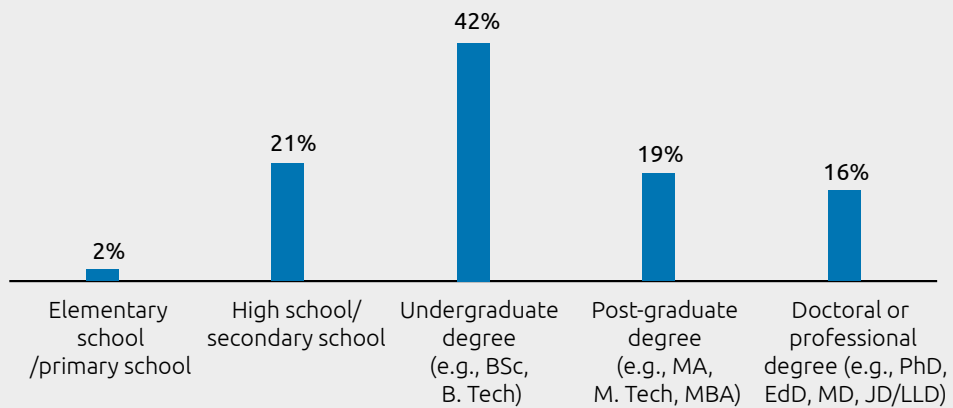
CONSUMER SPLIT BY AGE GROUP
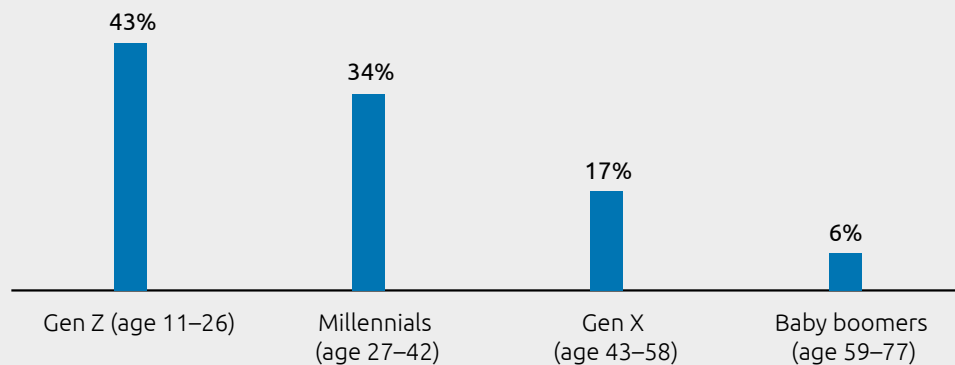
43% — Gen Z (age 11–26)
34% — Millennials (age 27–42)
17% — Gen X (age 43–58)
6% — Baby boomers (age 59–77)

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 10,000.
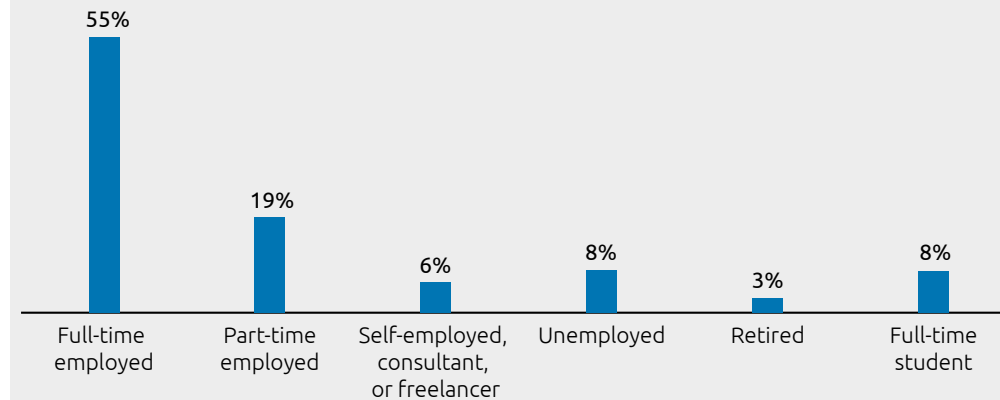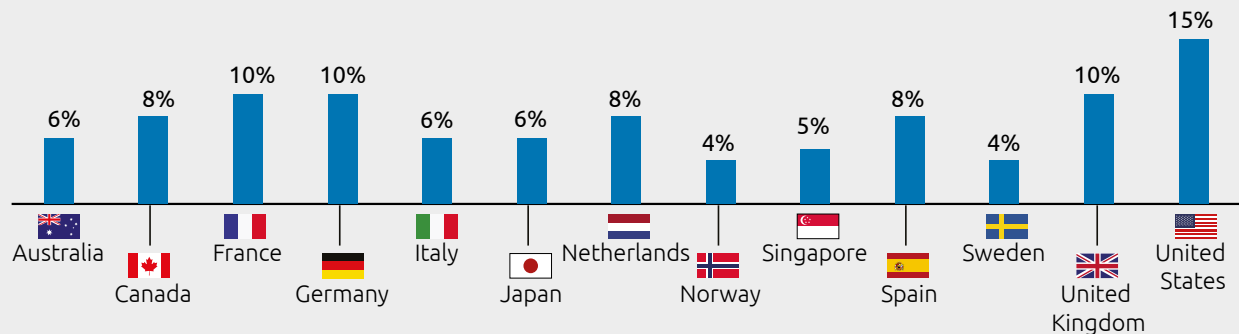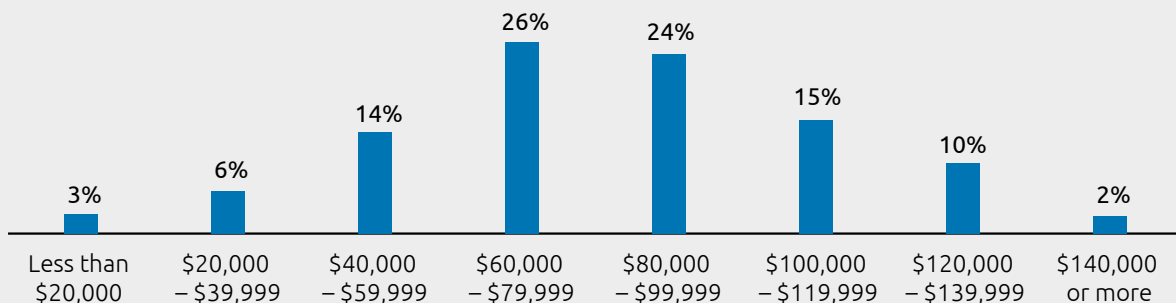
CONSUMER SPLIT BY SELF-IDENTIFIED GENDER
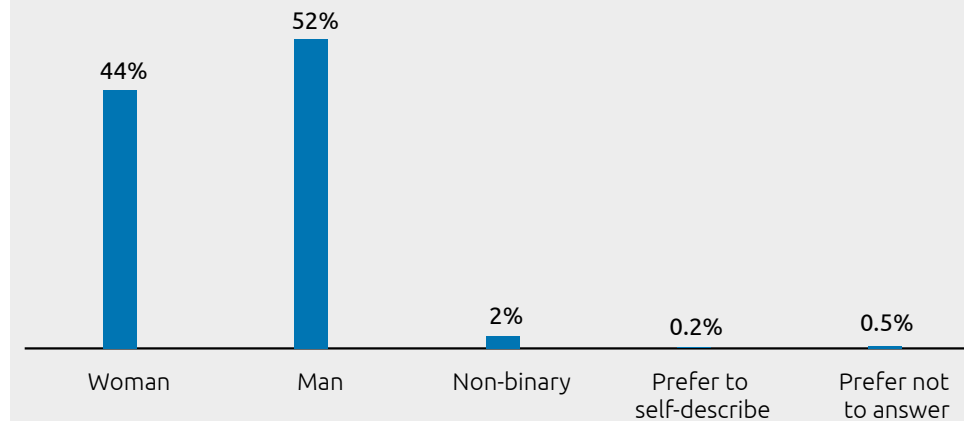
44% — Woman
52% — Man
2% — Non-binary
0.2% — Prefer to self-describe
0.5% — Prefer not to answer

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 10,000.

CONSUMER SPLIT BY EDUCATION

2%	21%	42%	19%	16%
Elementary school /primary school	High school/ secondary school	Undergraduate degree (e.g., BSc, B. Tech)	Post-graduate degree (e.g., MA, M. Tech, MBA)	Doctoral or professional degree (e.g., PhD, EdD, MD, JD/LLD)

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 10,000.

CONSUMER SPLIT BY EMPLOYMENT

55%	19%	6%	8%	3%	8%
Full-time employed	Part-time employed	Self-employed, consultant, or freelancer	Unemployed	Retired	Full-time student

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 10,000.

CONSUMER SPLIT BY COUNTRY OF RESIDENCE

Australia 6%
Canada 8%
France 10%
Germany 10%
Italy 6%
Japan 6%
Netherlands 8%
Norway 4%
Singapore 5%
Spain 8%
Sweden 4%
United Kingdom 10%
United States 15%

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 10,000.

CONSUMER SPLIT BY ANNUAL HOUSEHOLD INCOME

Less than $20,000 — 3%
$20,000 – $39,999 — 6%
$40,000 – $59,999 — 14%
$60,000 – $79,999 — 26%
$80,000 – $99,999 — 24%
$100,000 – $119,999 — 15%
$120,000 – $139,999 — 10%
$140,000 or more — 2%

Source: Capgemini Research Institute, Generative AI, Consumer Survey, April 2023, N = 10,000.

*The study findings reflect the views of the respondents to our online questionnaire for this research and are aimed at providing directional guidance. Please contact one of the Capgemini experts listed at the end of the report to discuss specific implications.

- Social and search analysis on consumer perception around generative AI was conducted in two periods: April 2022 to March 2023 for search analysis, and October 2022 to April 2023 for social analysis. Data aggregator tools, including Google Keyword Planner data, Talkwalker, and desk research, were utilized. Data sources such as social media platforms and forums were examined in multiple languages, namely English, Italian, Japanese, French, Spanish, German, Dutch, Portuguese, and Swedish, covering various countries, including Australia, Canada, France, Germany, Italy, Japan, the Netherlands, Norway, Singapore, Spain, Sweden, the UK, and the US.

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Capgemini's dedicated Generative AI Lab to deliver concrete business impact

Capgemini has been working with clients on AI and generative AI for years to respond to their specific business needs, particularly in the areas of Life Sciences, Consumer Products & Retail and Financial Services. Through its Generative AI Lab, Capgemini focuses on developing tailored solutions for clients, enabling them to leverage the potential of generative AI in a trusted, secure, and ethical framework to deliver concrete business impact.

The Generative AI Lab is a dedicated team of experts specialized in artificial intelligence from various Capgemini teams around the world, who are focused on following the evolutions of the technology, as well as researching and applying the most relevant use cases in generative AI for clients. The Generative AI Lab creates and delivers assets, education, and awareness to further enrich Capgemini's expanding expertise in this field, and the value it delivers to its clients.

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Create
the impossible

With custom generative AI for enterprise

According to Gartner, full maturity of generative AI is expected in 2–5 years, but the market is already shifting to bring generative AI closer to business use cases as 70% of global organizations currently explore generative AI.

BUT... for business, there are many problems behind publicly available generative AI large language models, as they are:

TOO DISJOINTED FROM BUSINESS REALITY

Generative AI tools bring technology but do not answer questions on how to address new requirements for risk, privacy, and business controls.

TOO UNIVERSAL AND NOT COMPANY-SPECIFIC

They are difficult to tune for real business scenarios at scale. They do not have your business knowledge and cultural context.

TOO UNCONTROLLABLE

Without training, you cannot control the quality and suitability of the output.

TOO RISKY FOR DATA AND PRIVACY

Many available tools have complex licenses or T&C fine print allowing third parties to read and learn from your data, or even forbid commercial use.

TOO DIFFICULT TO ADOPT AND SCALE

Both closed-source tools like ChatGPT and open-source alternatives do not have a built-in and enterprise-scale-ready technology stack.

Therefore, CXOs need to understand how to leverage generative AI, in a safe, secure, and controlled manner, to fit their business reality

We help you change the DNA of your work through generative AI

With **Custom Generative AI for Enterprise**, we help CXOs move from a standard risked usage of generic public large language models to **a tailored and trusted solution based on the use of their data and their company knowledge**, with reliable outputs creating significant tangible outcomes.

We leverage our proven framework to build secure, privacy-protecting, and reliable high-scale generative solutions.

Custom Generative AI for Enterprise acts as a "one-stop-shop" for enterprise-ready data, tools, and use cases to address business and technology needs and share a reusable, secure, and company-approved generative toolkit.

Capgemini helps you drive and deliver successfully your generative AI initiatives through four building blocks:

SET ORGANIZATIONAL FOUNDATION
Drive generative AI agenda with privacy and reliability at core

HOW TO START
Dedication workshops enabling your strategy, operating model and use case roadmap

BUILD RIGHT TOOLKIT
Use Capgemini's generative AI framework to build enterprise-ready solution

BENEFIT AT SCALE
Scale across use cases with dedicated generative AI CXO templates

Selected client projects and engagements

We have been working with clients on Generative AI for the last 3 years to respond to their specific business needs, in particular in the areas of Life Sciences, Consumer Product & Retail and Financial Services. We have worked for clients across industries (consumer goods, healthcare/pharma, tech/IT, etc.) in use cases such as content personalization at scale, knowledge management and search, customer experience assistants, as well as a software development assistants.

Amongst recent use cases:

- We collaborated with a large pharma company to use transformer models to generate novel medicinal molecules for drug discovery

- Also in life sciences: in 2020, we delivered a client project on resequencing of DNA with the help of Generative AI and Deep Learning.

- ADA (Artificial Data Amplifier): using Generative AI to create synthetic data (Sogeti), used in particular by the Swedish Social Insurance Agency

- We have supported various banks on code conversion in combination with software migration projects: using Generative AI to propose translations of software from "old" languages to modern languages

- We worked on Product Blueprint analysis with Generative AI for a client managing all documentation for highly complex engineering products

- We delivered the "Intelligent Document Query Assistant" for a leading insurance company located in more than 50 countries, enabling non-technical executives to ask questions in natural language and get accurate answers much faster

- We are currently working with a large consumer product Group on a Generative AI content creation engine. It automatically generates several options for Name, Features and Description (automatically search-optimized), making it easier to achieve content completeness and quality.

For more information, please visit:

https://www.capgemini.com/solutions/custom-generative-ai-for-enterprise/

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