How can we upskill Gen Z as fast as we train AI?

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AI and Gen Z

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Emerging technologies' impact through the generations

Emerging technologies have reshaped human behavior and transformed societies throughout history, from the invention of the wheel to the rise of the internet. And over and over, new technologies have altered how people live, work and play. Just as internet connectivity forever changed the world of work for Gen X, and Millennials were the early pioneers of social media – today's younger generations stand to drive the mass adoption of AI at work and by our societies at large. Understanding how Gen Z engages with AI and their attitudes toward it may determine how fast they get there, and ultimately may make or break your organization's ability to transform and keep pace in the AI-powered era.

"Generation Z" or Gen Z—born roughly between 1997 and 2007—are now entering universities and the workforce at large. By 2030, they will comprise some 30% of the workforce (John Hopkins University 2023), bringing with them new expectations that will drive change. They are a diverse generation, not a homogenous group. Nevertheless, there are some key characterizing themes: Gen Z is financially aware, in terms of how and where they are making and saving money; Gen Z is redefining indicators of success in the consumer landscape, in education and in the workplace; and Gen Z is focused on creating a better future, both for themselves and others (EY 2023a).

How will a generation who spends as much of their life online as off, react and respond to an AI-driven future?

The accelerated development of new, mainstream AI solutions has brought us to a moral and practical crossroads. Like a just transition to a green economy, an 'AI just transition' must ensure an AI-powered world leaves no one behind, with equitable outcomes for all. How might educators best strengthen critical and creative faculties to prepare students for an AI-powered world, while fully developing them as individuals? How might business upskill and empower the newest members of the workforce to fully harness AI's world-changing potential, and what should business do now so it does not squander the opportunity for change?

> "We looked at every occupation and saw that there's not one that has zero skills that are exposed to GenAI, at the same time there is not one that has 100% of their skills exposed. Gen Z workers are in the early stages of their careers enabling them to upskill and adapt to the demands of technological change, whether it is from GenAI or other innovations.

Mar Carpanelli
Head of AI and Skills Research, LinkedIn

To effectively address these questions and more, we need to understand how Gen Z perceives and utilizes this evolving technology in order to anticipate the risks and opportunities it may present in the future.

To date, surveys of Gen Z have been limited in nature:

- Relatively small samples
- Samples in specific regions; or questions in only particular contexts.

This report extends the scope of this discussion with a more robust and international survey to offer new understandings that highlight the challenges and opportunities of AI for Gen Z.

This report offers a summary of the survey findings by exploring various key questions:

1. How does Gen Z use AI and with what level of literacy?
2. How does Gen Z think AI will impact their lives?
3. What AI skills does Gen Z feel they need most?
4. And what's next for the various stakeholder groups: Gen Z themselves; their educators and employers; and the governments, policymakers and NGOs that have the responsibility to produce an empowering environment for us all?

All percentages are rounded to the nearest whole percentage number.

Our findings validate some perceived wisdom around Gen Z and AI. However, they also call some assumptions into question and guide the conversation in new directions.

When a technology is in its earliest stages of adoption, sentiment is often mixed until positive impacts emerge. Today, society is at a crossroads.

We have a crucial opportunity to equip Gen Z and future generations to interact with AI in ways that are agile and innovative, yet also mindful and robust, to realize the full potential of an AI-powered world.

"Gen Z has come of age in a world where productivity and efficiency are constantly intensified by the technologies that have been integrated into their daily lives since birth – and that includes AI technologies that have been in development for decades. The accelerated adoption of GenAI produces new constructs and is reframing trust. While Gen Z may be the generation most fearful of AI as a competitor, they will also be one of the greatest benefactors as AI guides a new, faster future.

Marcie Merriman
EY Global Cultural Insights and Customer Strategy Leader

GEN Z + AI: Key Stats

Usage

61% of Gen Z (a significant majority) are varied users of AI who are already experimenting and practicing with AI in both structured and unstructured ways in their personal and work lives.

42% of Gen Z said they think teachers would discourage them from using generative AI (GenAI) to complete certain tasks, while only 15% said employers would discourage this. This speaks to a disconnect between perceptions of AI usage in the educational setting, and the expectations for usage once out in the workforce.

Literacy

Gen Z scores well on their understanding of what tasks and products commonly use AI (translating languages in real time, identifying patterns in large amounts of data and editing photos to have a certain style).

However, their responses were not as clear in terms of best practices in prompting with GenAI to guide a specific output, meaning there is a disconnect in skills to properly utilize the technology.

Furthermore, only a third to half of Gen Z correctly answered questions related to AI's limitations (GenAI sometimes makes up facts), meaning a general lack of knowledge around AI's guardrails still exists.

Skills

Gen Z rates the following as the most important skills for being able to use AI well: creativity and curiosity; critical thinking; coding/computer programming; and writing.

Ethics, a significant concern for those creating AI literacy guidelines, is quite low on the skills priority list, suggesting the need for special attention by educators and businesses.

The two most common sources Gen Z turns to for AI information are social media (55%) and news articles/media (35%). Unlike these self-directed sources of education, educators and colleagues/employers were much lower in comparison, at 14% and 12%, respectively.

All percentages are rounded to the nearest whole percentage number.

GEN Z + AI: Key Stats

Feelings

The more AI knowledgeable Gen Z considers themselves, the more positively they view AI. Those who rate themselves as very or fairly knowledgeable about AI were much more likely to say "AI is predominantly an advantage for humanity."

Gen Z's trust in AI varies by region. Those in the Middle East, Africa and India have a higher trust in AI, whereas North American respondents have the most distrust.

Future

58% of Gen Z expect their AI usage to increase a lot or a little in their work life in the coming year, and 51% expect their AI usage to increase in their personal life.

Three biggest **benefits** of AI, according to Gen Z:

- 58% — Saving time on repetitive tasks
- 53% — Analyzing large amounts of data effectively
- 41% — Reducing human error in important processes

Three biggest **risks** of AI, according to Gen Z:

- 43% — Increasing unemployment by replacing jobs
- 43% — Reducing human learning and creativity
- 39% — Generating false information and content that is taken seriously

All percentages are rounded to the nearest whole percentage number.

AI Student, Worker and Citizen

The survey lays the groundwork for an ongoing and more dedicated discussion of what standard of AI literacy is required of different types of people in society. For example, in deciding what aspects of literacy to test, the research designers considered the specific experiences of these three archetypal AI users:

AI Student

AI Students are in educational settings where they are increasingly being expected to use AI tools competently and safely as part of their learning and benefit from doing so. With a long career ahead of them and most exposed to the impacts of AI, the need for AI literacy for AI Students is particularly strong.

AI Worker

AI Workers are increasingly likely to be expected to use and interact with AI tools competently and safely. With work practices and tools rapidly evolving, AI Workers need sufficient AI literacy to stay competitive in their roles, whether AI-focused or AI-supported.

AI Citizen

Despite not being actively engaged with AI in education or work, AI Citizens will still need a baseline of AI literacy as they interact with chatbots, and other technologies embedded in the user interfaces used to navigate the world around them.

Such different needs will need to be teased out in more detail as AI literacy becomes normalized and more nuanced, and when more time is dedicated to establishing evidence-informed AI literacy archetypal AI users.

Methodology

The foundational element of the report is an online survey that explored Gen Z's attitudes toward and the use of AI. From June 10 to June 28 2024; the survey collected 5,218 respondents drawn evenly from fifteen countries across five regions: Middle East, Africa and India (MEAI); Asia-Pacific; Europe; Latin America; and North America. The age of respondents ranged from 17-27 years-old, segmented to do justice to age-based differences within Gen Z.

This survey built upon several existing conceptions of AI literacy (The Alan Turing Institute 2024b, TeachAI 2023, Digital Promise 2024) to design a set of survey questions that did not just canvass Gen Z's perceptions and self-reported knowledge regarding AI, but also tested their ability to understand, use and evaluate it. Survey questions had a focus on Generative AI or GenAI, the largest category of AI currently used in the workplace (EY 2023b), making it a useful lens through which to view the issue of AI literacy and skills. Generative AI refers to AI tools that use algorithms and machine learning techniques to analyze patterns in data to generate new outputs.

One note: This survey was undertaken entirely online, highlighting the important issue of digital inclusion, as clearly only those with Internet access could participate[2]. Ensuring digital inclusion for all will be a fundamental part of delivering an AI just transition.

The survey was complemented by extensive desk research and interviews with AI experts who were chosen for their understanding of AI literacy in educational or workplace settings. These experts included:

Gina Neff
Executive Director, Minderoo Centre for Technology & Democracy at the University of Cambridge and Professor of Responsible AI, Queen Mary University London

Narmeen Makhani,
Associate Vice President, Product Engg. & AI, ETS

Kristen Eignor DiCerbo
Chief Learning Officer, Khan Academy

Pat Yongpradit
Chief Academic Officer, Code.org and Lead, TeachAI

Layiah Bulman
Senior Business Program Manager - Executive Producer, Minecraft Education

Dr. Sooyeon Kim
AI Leader, EY Korea

Mar Carpanelli,
Head of AI and Skills Research, LinkedIn

Yash Dutt
CEO and Founder, Yuva AI and We Are Family Foundation Youth Delegate who provided not only expertise but one sourced in the lived experience of Gen Z

Marcie Merriman
EY Global Cultural Insights and Customer Strategy Leader

Beatriz Sanz Sáiz
EY Global AI Sector Leader

Research collaborator Kite insights.

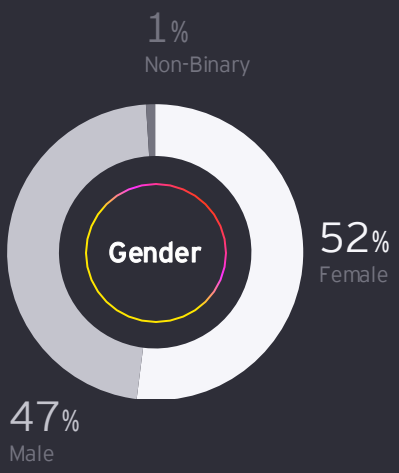
1. Within this date range, the survey was open to respondents from different countries for shorter periods according to when response quotas were met.

2. Globally, 79% of young people have Internet access, leaving a sizable minority who are excluded. This global average conceals large regional variations, ranging from 98% access in Europe, 95% in the Americas, 81% in Asia-Pacific, 78% in the Arab states, to a low of 53% in Africa. These regional differences are correlated to levels of wealth which range from 98% access for young people with a high income to 45% access for those with a low income (International Telecommunication Union 2023).

All percentages are rounded to the nearest whole percentage number.

The respondents

5,218
respondents



Regions and **countries** of residence

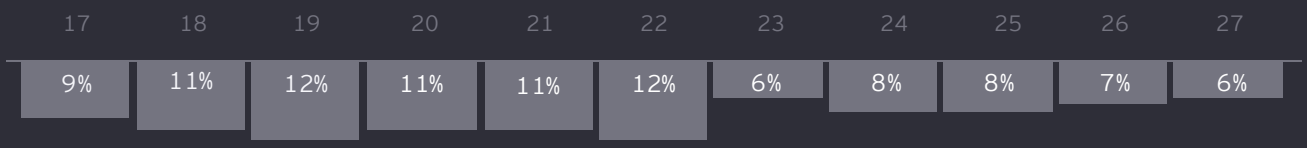
20% Asia Pacific
20% Europe
20% Latin America
20% MENAI
20% North America

5%

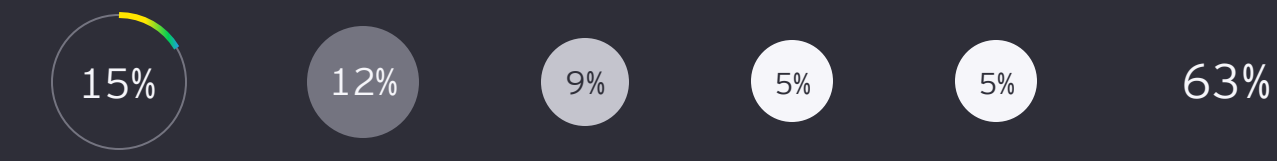
UK, Germany, Italy, France, UAE, Nigeria, China, South Africa, India, Indonesia, South Korea, Japan

Economic situation

Age of respondents

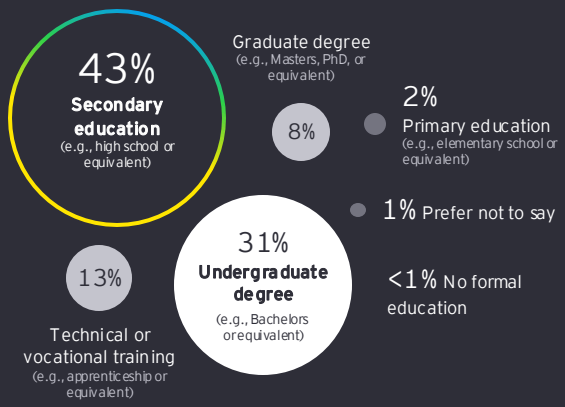


Diversity identification



All percentages are rounded to the nearest whole percentage number.

Highest level of education



Current education stage

[N = 2747]

47% Undergraduate degree (e.g., Bachelors or equivalent)

28% Secondary education (e.g., high school or equivalent)

12% Technical or vocational training (e.g., apprenticeship or equivalent)

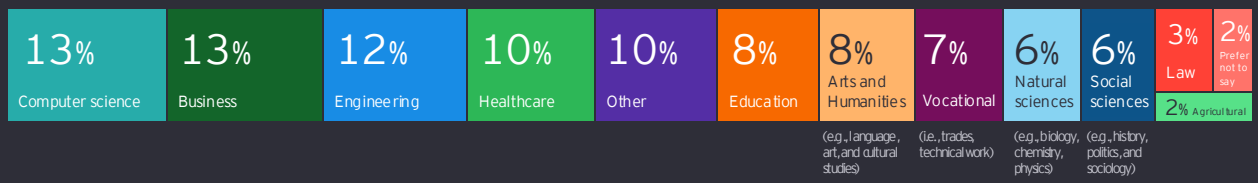
11% Graduate degree (e.g., Masters, PhD, or equivalent)

1% Other

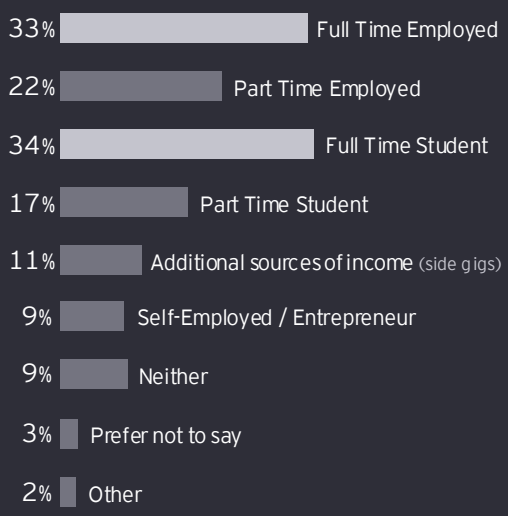
1% Prefer not to say

Subject area of highest-level qualification

[N = 2747]



Work or education status



Work industry

[N = 2492]

14% Technology

12% Consumer Products and Retail

7% Manufacturing, Chemicals, and Industrial Products

7% Real Estate, Hospitality, and Construction

7% Professional Firms and Services

5% Banking and Capital Markets

5% Media and Entertainment

5% Health

4% Automotive and Transportation

4% Government and Public Sector

3% Agribusiness

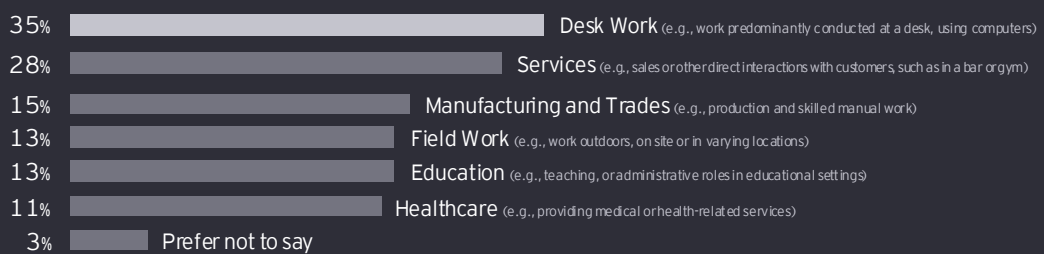
2% Telecommunications

2% Power and Utilities

24% Other

Type of work

[N = 3007]



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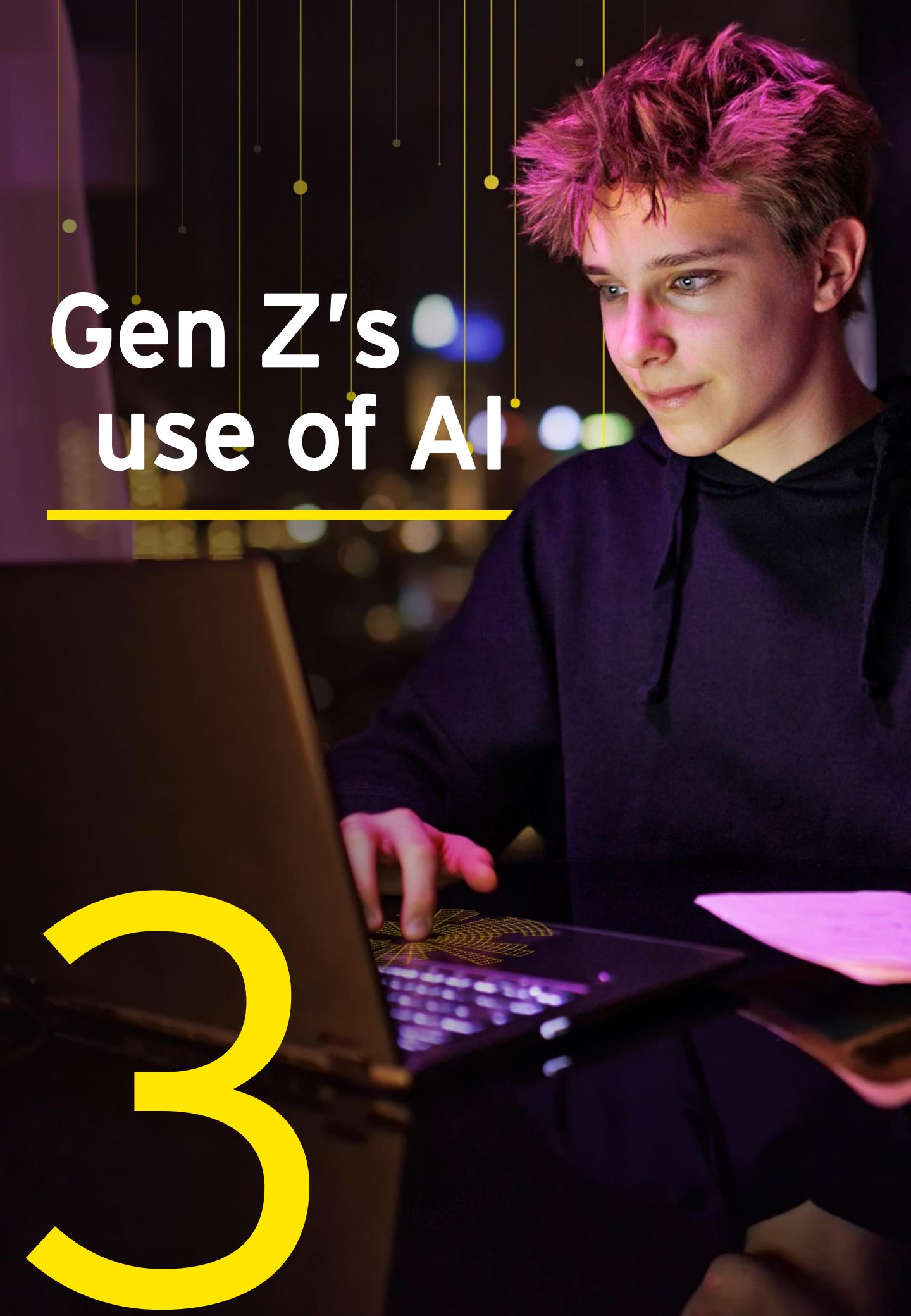


Gen Z's use of AI

3

A nascent conversation

The accelerated awareness and use of mainstream AI applications has been so recent that consensus has yet to form around Gen Z's attitudes toward its use. At the same time, the emergence of AI has been so rapid that by the time a study has been completed and published, some of its assumptions about AI may already be out of date.

And then given the nascent nature of the subject, the studies we currently have often ask quite rudimentary questions. We therefore considered everything we already 'knew' about Gen Z and AI with caution.

Just as discussions of the Internet's risks and opportunities have grown more specific and nuanced over time, so should the discussion about Gen Z and AI. Our report seeks to move the discussion in this more nuanced direction.

> "It's like we're at the dawn of the Internet when people [were] saying, "Is the Internet good or bad?" Now, we would think that's a ridiculous question because we understand all the varied uses and the nuances around Internet use. The same thing's happening here with AI.

Pat Yongpradit
Chief Academic Officer,
Code.org & Lead, TeachAI

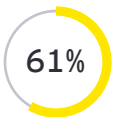
All percentages are rounded to the nearest whole percentage number.

Super users, varied users and stragglers

This survey asked Gen Z how often they use AI in each of eight different personal and professional activities, as shown in Figure 1. The findings show that Gen Z can be divided into three groups of users: super users, varied users, and stragglers.

Super users

A minority (**15% of respondents**) are "super users" who use AI across all the eight activities offered in their personal and professional lives either daily, weekly or monthly.



Varied users

A majority (**61% of respondents**) are "varied users" who use AI across some of the eight activities in their personal and professional lives with a frequency depending on chosen activity.

Stragglers

A minority (**24% of respondents**) are "stragglers" who use AI across all eight activities either less than once per month, once or twice, or never. This group could include those who have just started using AI, have not utilized AI in the eight common ways listed, or have never used AI at all.

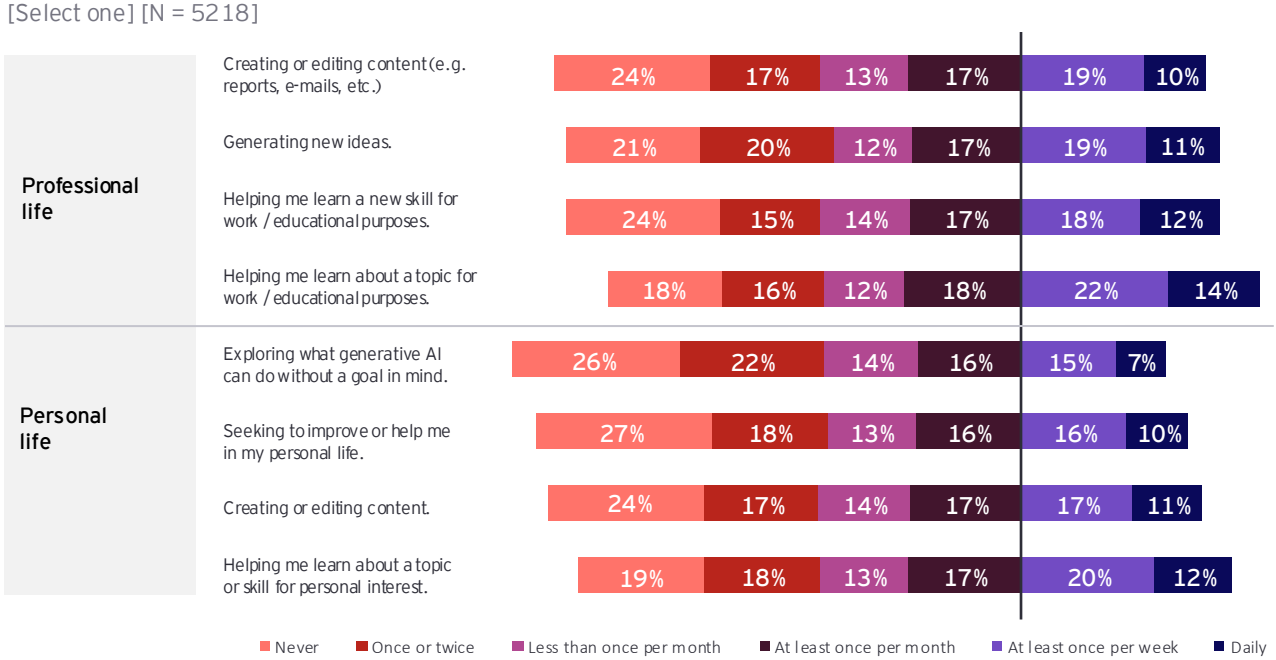
The bar for being a super user in the survey was quite high, but if young people are confident users of digital technology, this category may be smaller than imagined.
This could indicate that a facility with one type of digital technology does not necessarily translate to others, or that AI is too new to have garnered truly widespread adoption and use.
But nevertheless, with the significant majority being varied users,
most of Gen Z is already experimenting and practicing with AI, whether in structured formal or unstructured ways.

Figure 1 charts the eight different activities spanning both professional and personal domains. Roughly half of Gen Z use GenAI to learn about new topics, with 54% doing so at least monthly in their professional lives and 49% in their personal lives. This suggests a readiness among Gen Z in educational and work contexts to both learn about AI and to apply AI in their day-to-day activities.

Figure 1

Gen Z uses AI in different ways across both their personal and professional lives

[Select one] [N = 5218]



All percentages are rounded to the nearest whole percentage number.

In their own words:
Gen Z and AI use

> For studies, it's really useful or to find new recipes.

> I use it to generate stories for my personal enjoyment.

> I use it to analyze market trends and data for better decision-making.

> I use AI to clarify doubts about certain subjects and topics.

> Help make my words neater.

> It doesn't surprise me that our students are curious and looking for tools to help them solve big problems. That means building a basic understanding of AI and helping them understand how AI systems work so that they can really take advantage of them.

Laylah Bulman
Senior Business Program Manager - Executive Producer, Minecraft Education

Some AI tools are finding adoption and usage faster than others. **ChatGPT** is the preferred choice among Gen Z respondents.

Previous surveys show 46% of Gen Z had an awareness of ChatGPT but only 16% had used it (Touchstone 2023) and another where around half of the respondents had heard of it but only 1-7%–depending on country–used it frequently (Reuters 2024).

All percentages are rounded to the nearest whole percentage number.

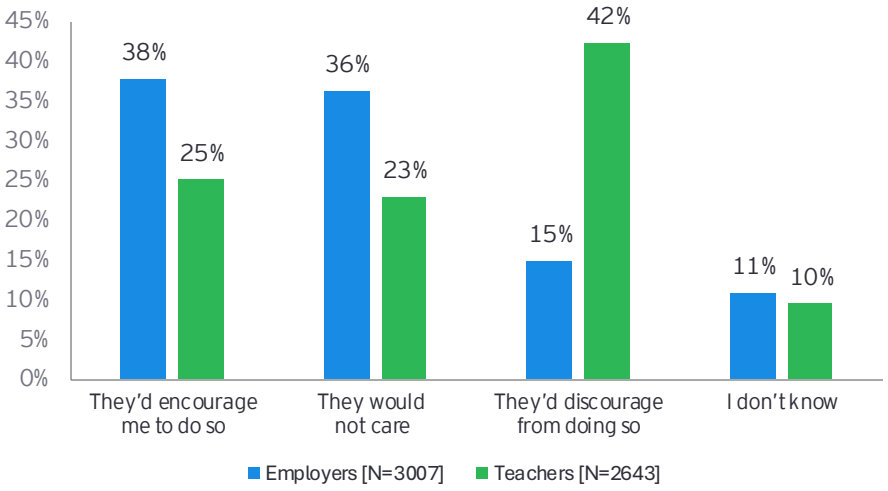
Educational and work use are perceived differently

One key finding is about the importance of context. Survey participants distinguished between educational and workplace contexts with an assumption that AI use will be looked upon more favorably at work (Figure 2).

Figure 2

Gen Z believes AI use would be looked upon less favorably in an educational than work setting.

How do you think your educator / employer would react if they learned you were using generative AI to complete certain tasks? [Select one]



"That perception is coming from conflicting messages from educational institutions around Generative AI as a tool to "cheat on assignments" versus Gen AI as a tool to use in their education but not rely on ... How do educators help prepare students for the kind of critical pivoting that Gen AI tools of the future are going to ask of them? I think this is an incredibly powerful way to prepare the workforce of the future. And this survey shows that's not happening. Yet.

Gina Neff
Executive Director, Minderoo Centre for Technology & Democracy at the University of Cambridge and Professor of Responsible AI, Queen Mary University London

All percentages are rounded to the nearest whole percentage number.

“

The biggest concern anytime I talk to anyone who's at a university is cheating, that the kids are going to use this to write out their essays. When I talk to students, their biggest concern is they want to use AI in productive ways as an assistant, but they are totally unclear on what's acceptable and what's not. They're looking for guidance to figure out how to use these tools. On the other hand, the shift in the workplace is "we do want you to use this as an assistant. We want you to use this to be get more done faster." That's a shift and the problem is that some workplaces have made it, but the university system has not.

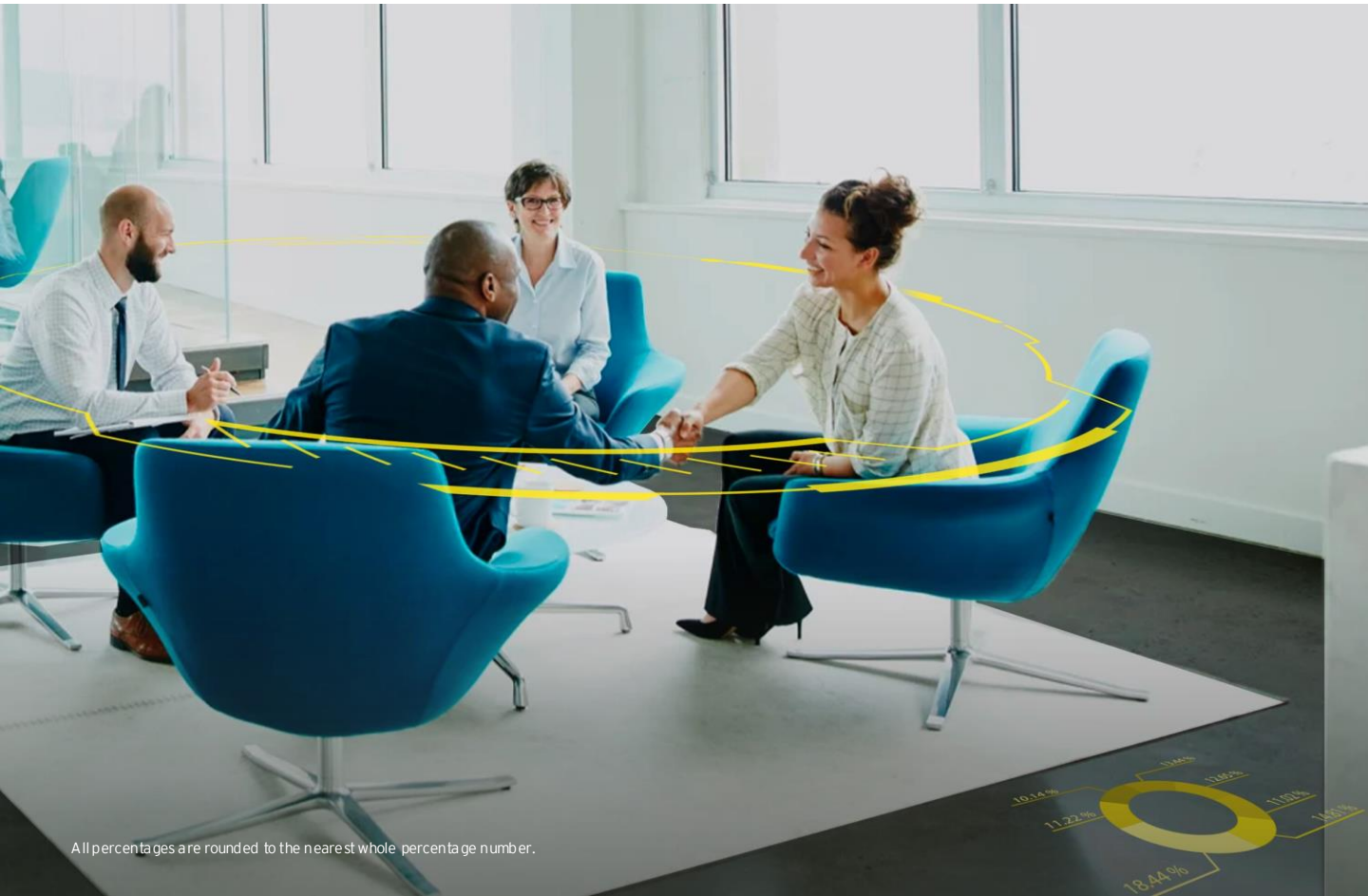
Kristen Eignor DiCerbo
Chief Learning Officer,
Khan Academy

This has several implications. From a values perspective, it suggests Gen Z senses a disconnect between what educators and businesses consider to be important. This is problematic because it implies that Gen Z is being taught one thing within educational institutions and expected to do another in the workplace (or at least Gen Z perceives this to be the case).

It would benefit all stakeholders to develop a more shared set of expectations toward AI across contexts: whether that involves some balance between education and business approaches, or one moving toward the other.

Gen Z women assume a more negative response to AI use than men, with 8% of women compared to 6% men in the context of work and a notable 23% to 19% in the context of education.

This finding may mirror the trend that girls and women are often in greater alignment with teacher expectations and thus do better in formal education systems (Carroll 2023).



All percentages are rounded to the nearest whole percentage number.

Gen Z's AI literacy

The resources outlined below—and others—were distilled to inform the survey design.

Organization	AI literacy definition
The Alan Turing Institute, which focuses on data science and AI (The Alan Turing Institute 2024b).	▪ Offers four personas: AI citizens, AI workers, AI professionals, and AI leaders. ▪ Each persona is assigned specific competencies at a level relevant to their engagement with AI.
TeachAI, which helps policymakers and educators act on the implications of AI to improve education systems (TeachAI 2023).	▪ Involves the knowledge, skills, and attitudes needed to understand how AI works, including its societal and ethical impacts, and how to use AI effectively and responsibly across various contexts and disciplines. It draws from diverse subjects including computer science, mathematics, ethics, and psychology.
Digital Promise, which focuses on equitable educational outcomes (Digital Promise 2024).	▪ Proposes three strands of its framework: understand (computer science and computational thinking); use (interacting, creating, applying); evaluate (transparency, safety, ethics, impact).

At a glance

The survey canvassed not just self-reported AI literacy but embarked upon a more rigorous process of testing and measuring it. As such, the survey contained scored questions across three categories: understanding how AI works, using AI effectively and responsibly, and evaluating AI tools and their outputs. In each question, respondents were given a set of choices with at least one "good" or "best" answer and at least one "incorrect" or "poor" answer. Based on their answers, respondents would gain, maintain or lose points. In summary, **Gen Z:**

Scored the best on questions about understanding AI such as selecting what tasks and products commonly use AI.

Were less confident about questions involving use of AI, which specifically covered writing the best prompts for AI to give the best answers.

Scored poorly on evaluating and identifying critical shortfalls with AI technology, such as whether AI systems can make up facts.

In summary, these findings show that there is an uneven level across the three domains of AI literacy, which has significant ramifications.

For example, a Gen Z student or worker may be quite fluent in the day-to-day use of a specific GenAI tool and therefore, assume their level of literacy to be relatively high; however, that does not necessarily mean their ability to evaluate that tool is sufficient. For educators, this suggests greater emphasis on critical thinking is required. For businesses, this suggests the potential to misinterpret practical proficiency as overall AI literacy, which if wrong may have significant impacts on the business.

All percentages are rounded to the nearest whole percentage number.

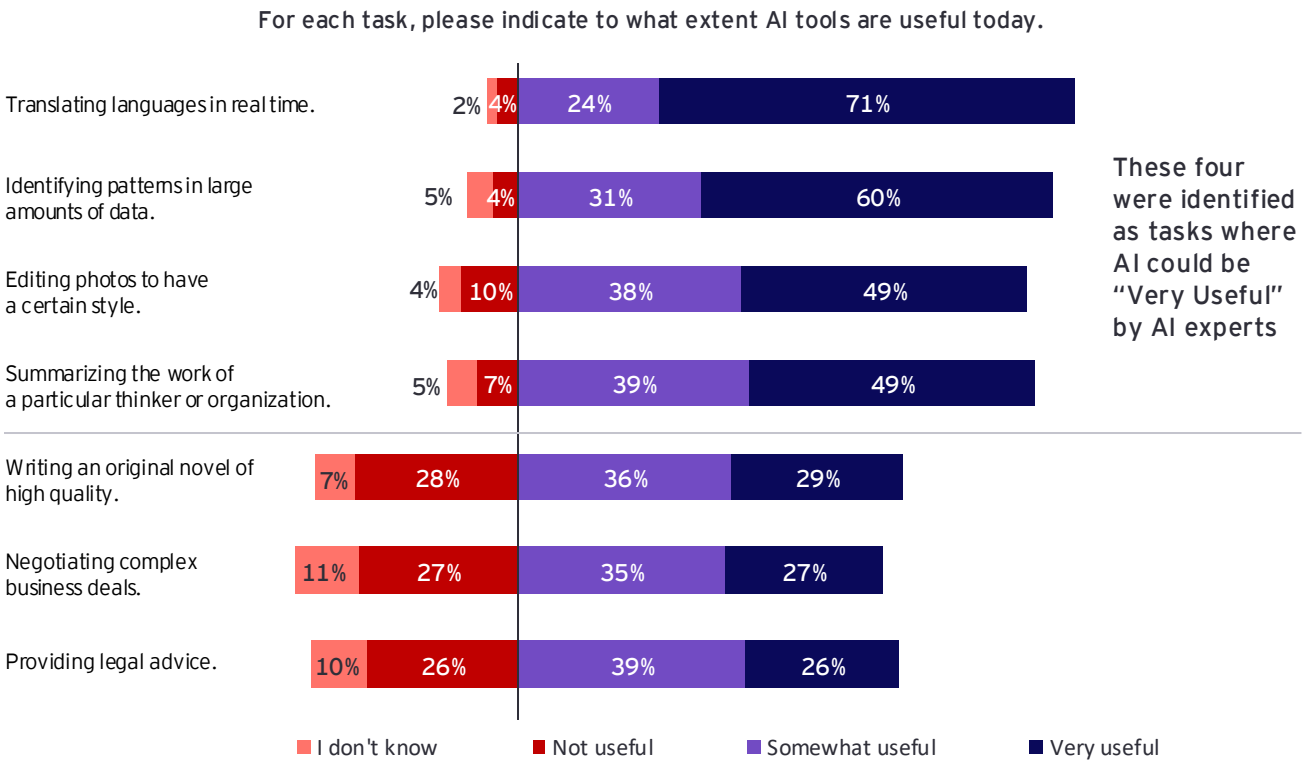
Understanding how AI works

Gen Z scores well on their understanding of AI. Respondents were presented with a range of possible applications, four of which were judged by a panel of experts to benefit from AI. As seen in Figure 3, Gen Z responses are largely in alignment with the expert opinion.

Most respondents could also correctly identify which services and products use various forms of AI, such as chatbots that answer customer questions, smart home devices and recommended posts on social media feeds.

Figure 3

Gen Z understands which products and tasks benefit from AI



These results suggest that both educators and business are doing a reasonable job of communicating to students and consumers where AI is being used and what some of the more common applications of AI might be. However, all stakeholders with an interest in AI may need to continually revisit these assumptions depending on advancements in technology: for example, while AI may not be great at writing high-quality novels today, it may have made significant advancements by next year.

All percentages are rounded to the nearest whole percentage number.

Using AI effectively and responsibly

Scoring around Gen Z's use of AI was based largely on questions around prompting for both text- and image-based GenAI tools. The best prompts were based on guidance offered within GenAI literature. In the text-based question the answers were evenly split across the three possible prompts, suggesting a common uncertainty about the value of using personas to shape output and the use of triple quotes to distinguish between instruction and context. In the image-based question, there was a clear bias toward the best prompt which contained more detailed instruction.

The multiple-choice nature of this question may have enabled respondents to lean into common sense; as such, we might have expected the results to have been even better. The ability to craft good prompts and meaningful questions is crucial to successful use of GenAI. But any challenges Gen Z has may not be specific to prompt-engineering: it may also be about a more general inability to pose better questions.

> “Students aren't that great in terms of knowing how to ask questions of the AI to get meaningful responses. We see a lot of that when we look at the chat transcripts of not even, “I don't know”, just “IDK, IDK.” If they gave a little more, the Generative AI would be able to help a lot more. Now the interesting thing is when we talk to teachers they say, “we're not surprised.” So, it's not just how they interact with the AI, it's their metacognitive skills about understanding how to ask good questions and what they know, but it turns out that's a really important skill in interacting with the AI.

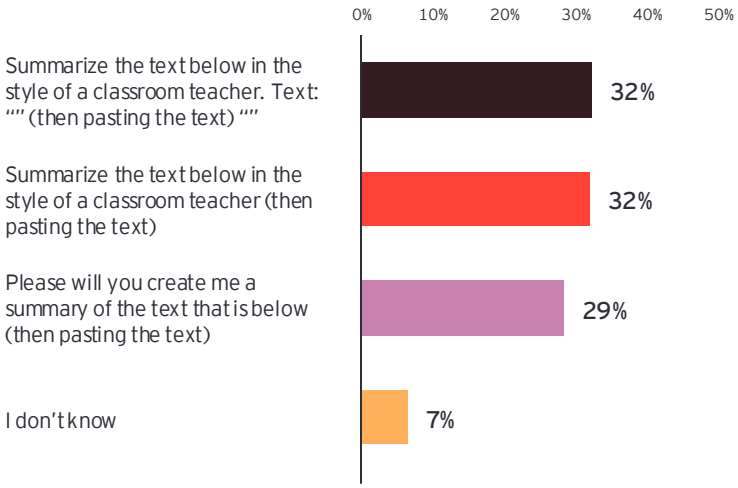
Kristen Eignor DiCerbo
Chief Learning Officer,
Khan Academy

Educators – and the policymakers and NGOs that support them – therefore may need to consider doubling their efforts to develop these metacognitive skills, reiterating why they are important by connecting them to real-world applications such as GenAI. Business, which is sometimes overly focused on the use of a specific tool for a specific task, will need to think about broadening its training offerings to bolster such transversal skills.

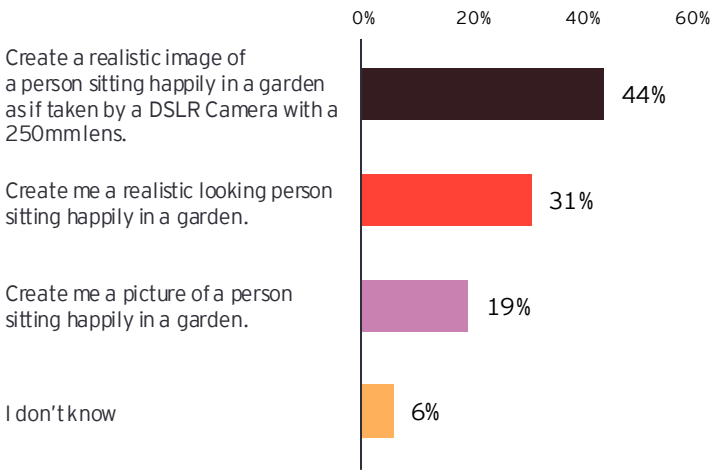
Figure 4

Gen Z is uncertain of some prompt engineering best practice

Ask a generative AI tool to summarise a text that can be read in a classroom.



Ask a generative AI tool to create a realistic picture of someone sitting happily in a garden



All percentages are rounded to the nearest whole percentage number.

Evaluating AI tools and their outputs

Gen Z does less well in evaluating AI, which is both crucial to and sometimes hard to separate from effective use and understanding. Respondents were offered several "true or false" questions that gauged their ability to critique AI, particularly in understanding key limitations of AI tools, how they are built, and rules around the data they can use.

Only a third to a half of respondents chose the correct answer to questions about: being able to bypass rules programmed into GenAI; whether GenAI can provide incorrect answers; and the need for permission for data use in GenAI training (Figure 5).

This may suggest a general lack of knowledge around AI, which itself points to an overlap between understanding and evaluating AI within existing conceptions of AI literacy. Gen Z's general optimism toward AI may also be hindering critical engagement.

Figure 5

Gen Z performs less well in identifying limitations and risks associated with AI than many might expect

Percentage of respondents who selected the correct answer in a True/False scenario.

True

It's possible to bypass rules programmed into generative AI that restrict the content it can create.

True

Generative AI systems that are trained on real data sometimes make up facts.

False

AI developers must have explicit permission to use a person or organisations' data to train an AI system.

All percentages are rounded to the nearest whole percentage number.

"There's a huge gap between developers and the people on the ground of all ages. Sometimes the experts forget the degree to which they're actually experts and how much more they know than the general population.

Marcie Merriman
EY Global Cultural Insights and Customer Strategy Leader

Trust was also explored as another aspect of evaluating the use of AI. Respondents were presented with a range of scenarios, some of which – such as using a chatbot or evaluating environmental impact–are considered more trustworthy by our panel of experts. In general, trust was not particularly forthcoming, with all options trusted by less than half of respondents (Figure 6).

However, some choices–such as finding a specific quote by a political leader – were viewed more favorably by Gen Z than the experts. Gen Z also appears less worried about the ethics of video monitoring than might be imagined– which is perhaps to be expected of "social media natives."

"Gen Z's familiarity with AI, particularly in areas like video monitoring and information retrieval, can sometimes lead to overlooking potential ethical concerns. As 'social media natives,' they may underestimate the risks and are usually quick to adopt new tools, which is why it's crucial to teach them not only how to use AI, but to critically evaluate its ethical implications and limitations.

Narmeen Makhani
Associate Vice President,
Product Engg. & AI, ETS

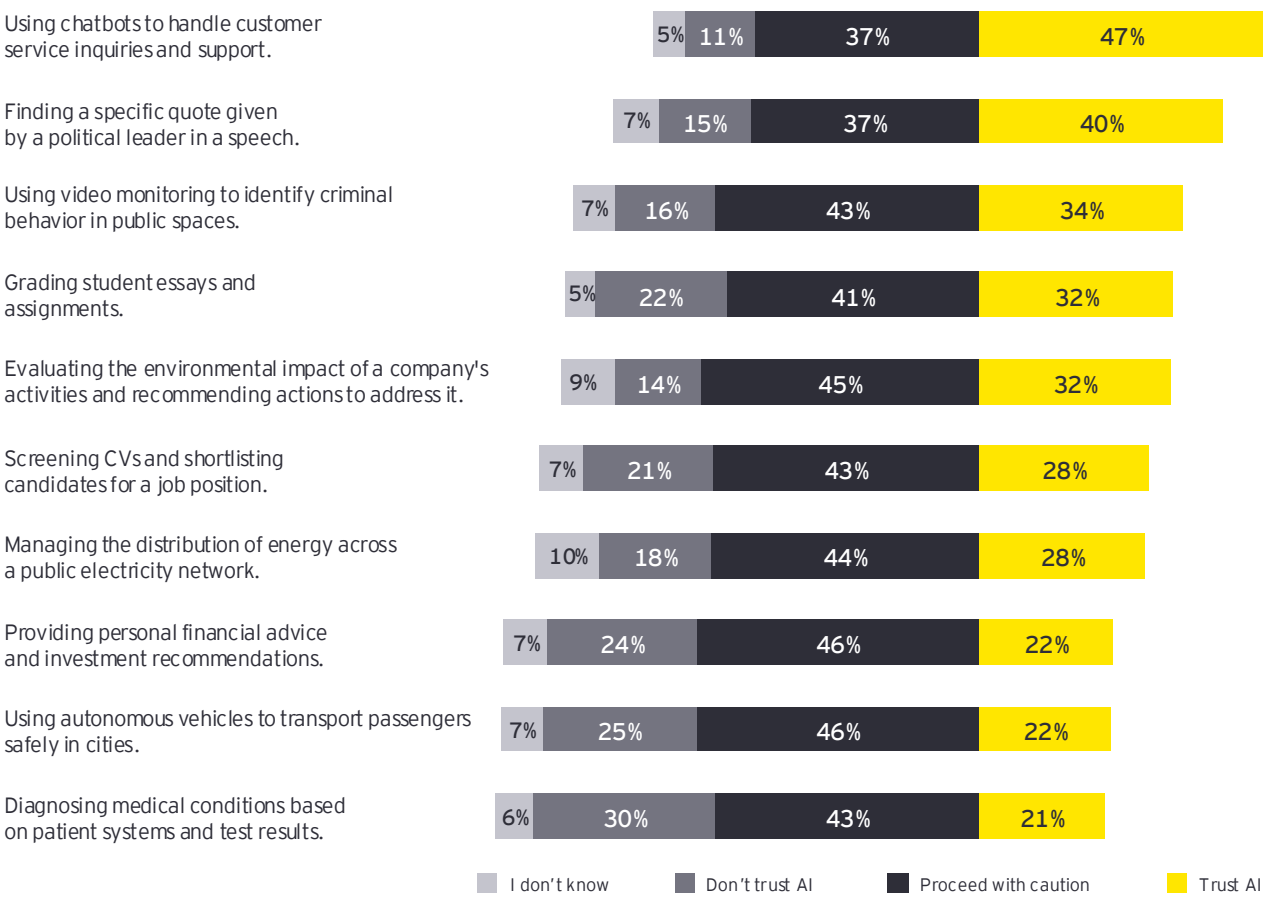
"What I think is interesting about Gen Z's struggles to evaluate GenAI and understand critical shortfalls is that many of the warning signals that the research community have suggested are not getting through to the general population about how tools are used.

Gina Neff
Executive Director, Minderoo Centre for Technology & Democracy at the University of Cambridge and Professor of Responsible AI, Queen Mary University London

Figure 6

Gen Z's trust of AI in different applications doesn't always line up with what experts say it is good at today

[Select one option for each row] [N = 5218]



All percentages are rounded to the nearest whole percentage number.

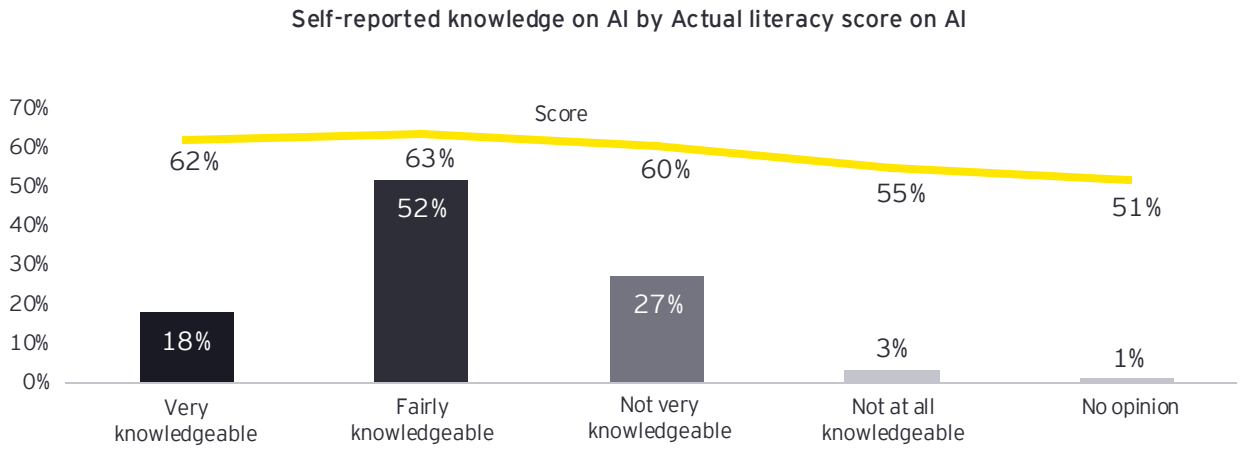
Difference between actual and self-reported knowledge

So far, this report has unpacked Gen Z's ability to understand how AI works, use AI effectively and responsibly, and evaluate AI tools and outputs. But there is a further distinction to be made: the gap between Gen Z's actual overall knowledge of AI and their self-reported knowledge. In short, scored knowledge is relatively consistent, regardless of self-reported knowledge. As seen in Figure 7, those who self-reported being "very knowledgeable" scored marginally lower than those who self-report as being "fairly knowledgeable" and only marginally higher than those who self-reported "not very knowledgeable." Even the small group who self-reported as being "not knowledgeable at all" scored reasonably.

The implications of this are uncertain, but may point to the fact that the conversation around AI is still so nascent and moving so fast, that it is difficult for Gen Z to have an informed opinion about their abilities; it would be prudent for educators and businesses to keep this in mind as they respond to the needs of Gen Z (and also in assessing their own actual verses self-reported knowledge). Given the dual challenge of a contestable assumption of Gen Z being "digital natives" in combination with overly confident self-reported knowledge, businesses should be cautious about how they assess AI literacy within the workplace.

Figure 7

Gen Z's scored AI literacy is similar regardless of self-reported literacy



Perhaps surprisingly given that Gen Z scores better on use and understanding than evaluation, there is little difference between self-reported and actual knowledge when these three domains are unpacked.

All percentages are rounded to the nearest whole percentage number.

Gen Z and AI skills

Perceived skills

The AI in Education report from Microsoft outlines the non-technical skills that employers believe will be required to effectively use AI in the workplace. In descending order of importance to employers, they are: analytical judgement, flexibility, emotional intelligence, creative evaluation, intellectual curiosity, bias detection and handling, and AI delegation (Microsoft 2023).

What skills does Gen Z believe are needed for competent use of AI? Four separate choices tied for first place from our survey: creativity and curiosity; critical thinking; coding/computer programming; and writing. When second and third most important choices are accounted for, creativity and curiosity come out on top (Figure 8). It is noteworthy that ethics—a significant concern for those promoting AI literacy—is quite low down the list, suggesting the need for special attention by educators.

There are some minor regional variations here. For example, Asia-Pacific, Latin America and MEAI all had creativity and curiosity as their highest-ranked skill set, whereas North America and Europe had critical thinking as theirs. While writing was pushed into fourth place overall, MEAI, North America and Europe all had it within their top three.

- Analytical judgement
- Flexibility
- Emotional intelligence
- Creative evaluation
- Intellectual curiosity
- Bias detection and handling
- AI delegation

The skills necessary for AI can be divided into two equally important categories that inform one another. The first category comprises AI-specific skills such as prompting or more technical computer science skills for developing AI.

The second category includes transversal skills such as critical thinking and curiosity. Gen Z survey respondents understand they need both; in a world where "solutions" to problems can be readily provided by AI tools, **it becomes more important than ever to pivot from problem-solving to problem-formulation, and this is not an AI-specific skill (World Economic Forum 2024).**

"I would argue that you can't separate those two things, and that you need to have some domain knowledge of how AI works in order to be able to critically think about it and use it in creative ways. Those two are somewhat tied together and we shouldn't try to pull them apart.

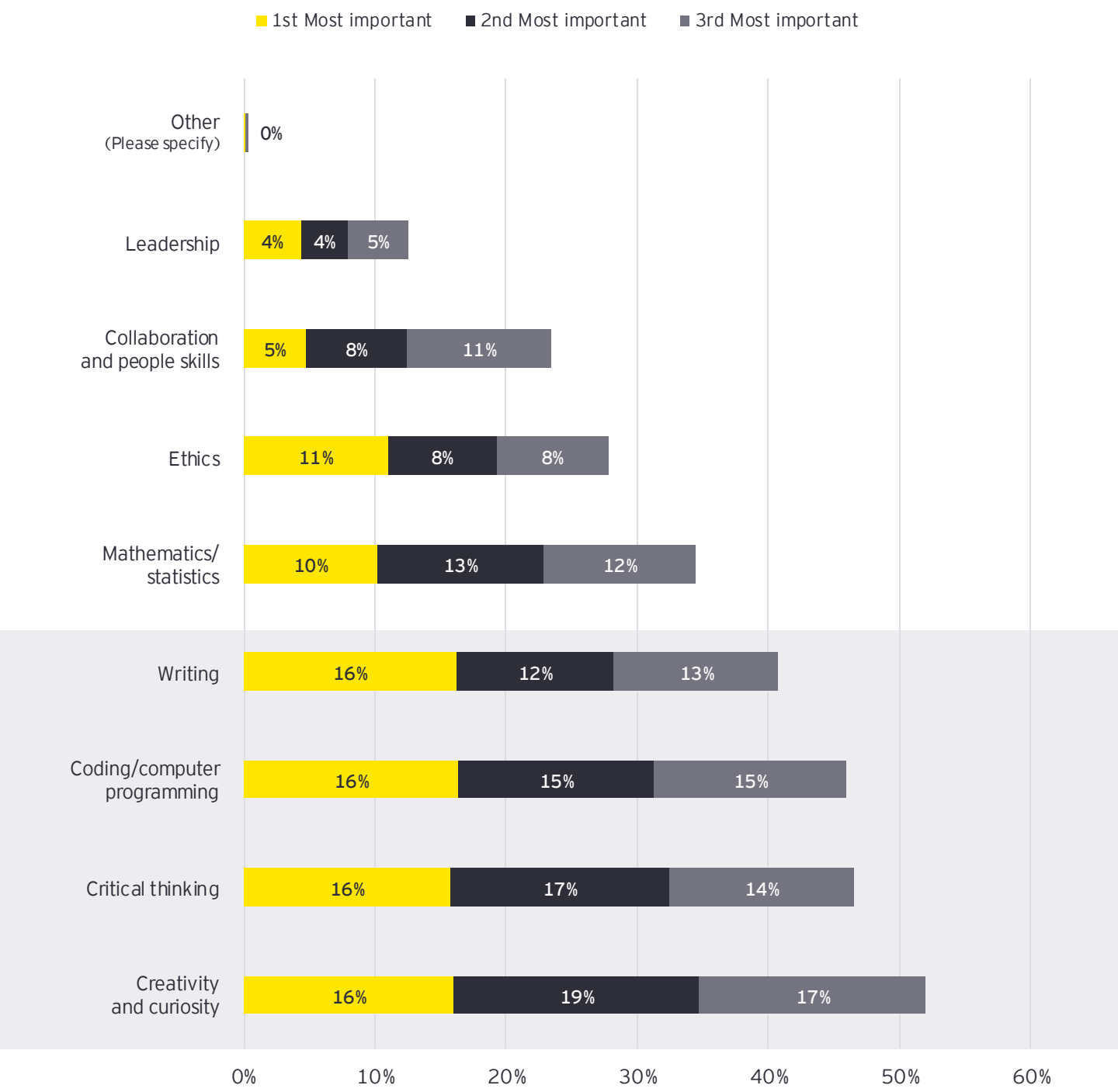
Kristen Eignor DiCerbo
Chief Learning Officer,
Khan Academy

All percentages are rounded to the nearest whole percentage number.

Figure 8

Gen Z values creativity, curiosity, creative thinking and coding as AI skills

[Rank order three options] [N = 5218]



All percentages are rounded to the nearest whole percentage number.

Sources of AI information and learning

If Gen Z has correctly identified the transversal and technical skills it needs to coexist and thrive with AI, where should they acquire the knowledge to develop those skills?

Only 14% of Gen Z identifies educators as a source of AI information, which is similar to more official sources such as formalized training programs (14%) and employers (12%) (Figure 11). This contrasts with 55% of Gen Z who turn to social media for information and 35% to news articles, which reiterates much of what we already know about Gen Z's preferred sources of information.

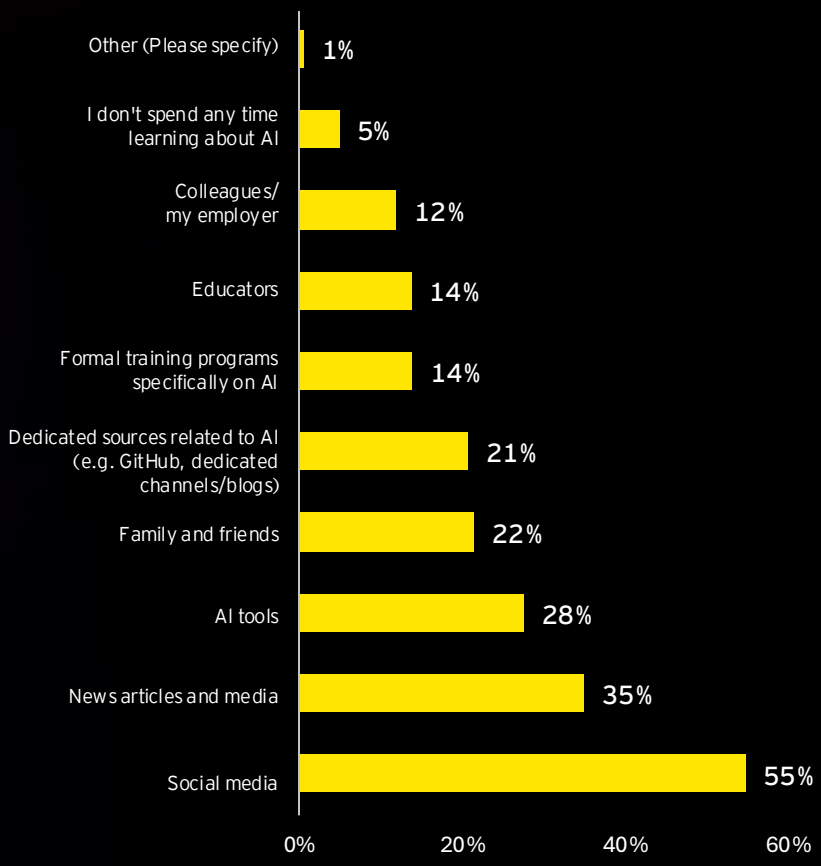
> "Gen Z loves social media and newsfeeds and if I want to reach a much broader audience and not just bake AI literacy into formal education systems, that's something I have to remember ...
>
> The takeaway here is that we have to think about the formats we use to communicate AI literacy.

Pat Yongpradit
Chief Academic Officer, Code.org & Lead, TeachAI

Figure 9

Gen Z mostly finds information about AI from social media, news articles and AI tools

[Select all that apply] [N = 4580]



The preference for less-official sources of information is clear, but it is worth keeping in mind that social media can include high-quality videos that are fundamentally educational in nature. Nevertheless, these findings point to a degree of initiative among Gen Z to empower themselves with information about how to use AI.

Even without significant educational guidance, 52% of Gen Z either sometimes or often spend time reading, watching or listening to content about AI, with the remaining 47% either rarely or never.

Of the AI resources Gen Z finds for themselves, 68% are either satisfied or very satisfied with them.

All percentages are rounded to the nearest whole percentage number.

“

One of the interesting things that you’ve uncovered here is the kind of experimentation and play that is happening, with or without a supervisor or a teacher’s approval. So, you’ve got people who are trying to figure out these tools for themselves and they’re not waiting for their employer to either expressly direct them to do it or they’re not waiting for permission from their teacher to do it. That does call for a set of skills for understanding the power and the limitations of what particular models and tools can do for them, but also understanding the risks within particular contexts.

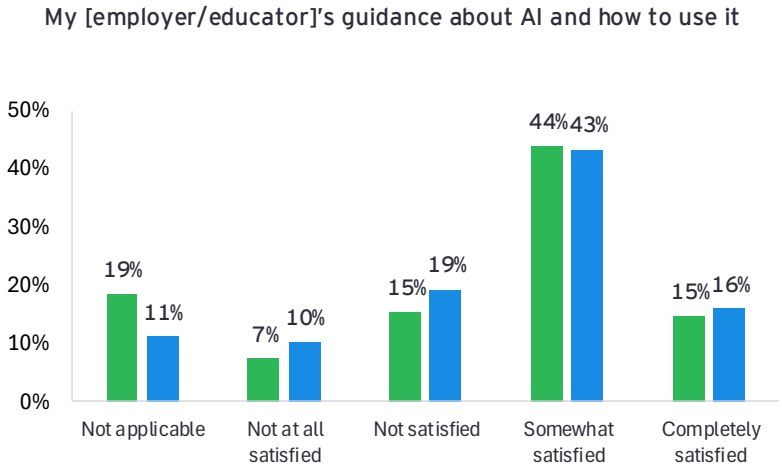
Gina Neff
Executive Director, Minderoo Centre for Technology & Democracy at the University of Cambridge and Professor of Responsible AI, Queen Mary University London

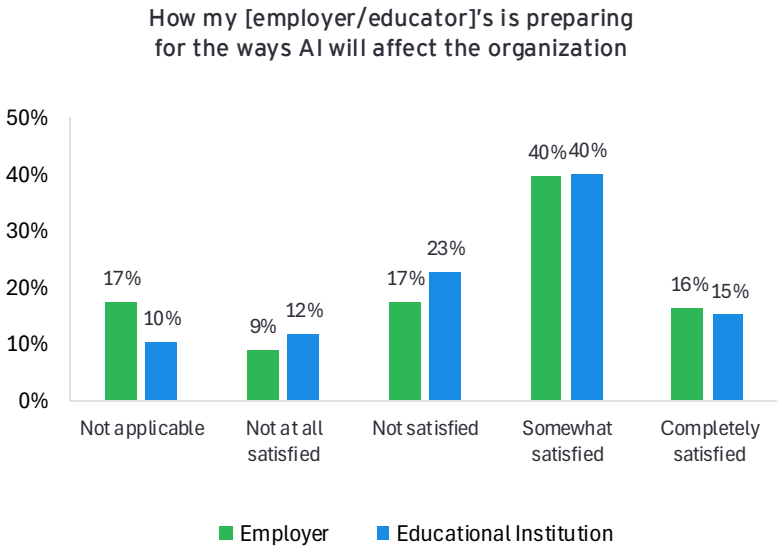
The tendency toward self-directed learning reflects lukewarm perceptions of the AI learning support currently offered by educators and employers. As shown in Figure 10, the largest group of Gen Z are only somewhat satisfied with both the AI guidance they receive from their educational institution or employer and how those organizations are preparing for AI. There is very little variation between educational institution or employer in this instance, in contrast to the previous difference in perceptions about how AI use would be perceived within those organizations.

Figure 10

Gen Z is mostly somewhat satisfied with the guidance and preparation for AI from their employer or educational institution

[Select all that apply] [Employer N = 3007, Education N = 2643]





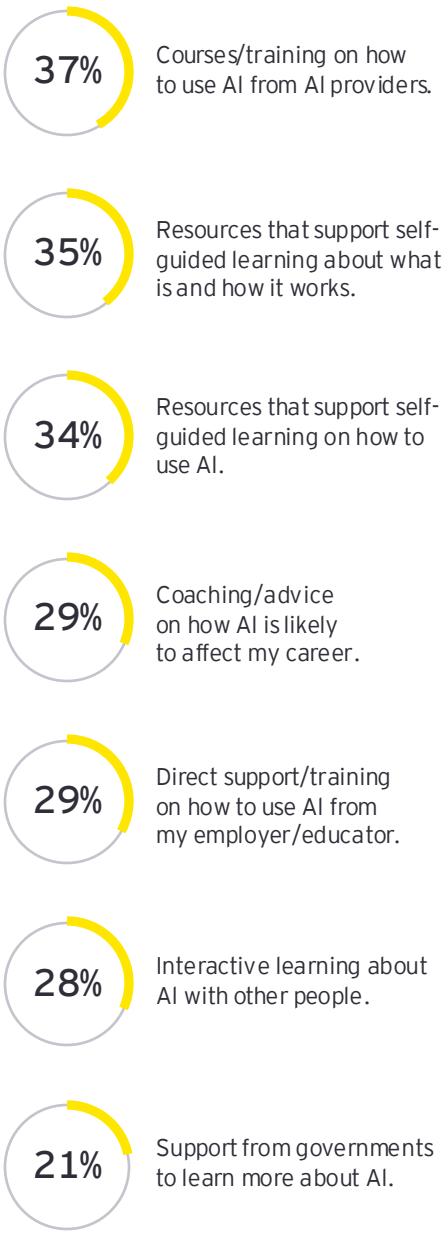
All percentages are rounded to the nearest whole percentage number.

Similarly, despite there being overall satisfaction with the AI resources they currently have, a significant minority of Gen Z signals a wish for more formalized types of AI support, as shown in Figure 11.

Figure 11

Gen Z mostly wants AI support in the form of courses from AI providers and resources for self-guided learning

[Select up to three] [N = 5218]



Clearly, Gen Z is not holding out for intervention from educators and employers. Rather, their initiative-taking could be harnessed by schools and workplaces, which should provide additional support to help Gen Z use and critique AI more effectively.

It is also worth considering a diversity of methods as we approach the resourcing of AI literacy that do not fall into the trap of over-relying on technological and "novel" solutions. There may be some lessons to be learned here from previous experiences with Massive Open Online Courses (MOOCs): these were expected to revolutionize education, but ultimately have been found to suffer from very poor engagement and completion rates (Huang et al 2023). This suggests we should not rely solely on technological teaching solutions but utilize them in combination with best practices gleaned from many years of experience.

"

There are rules of learning and things that we know about how people learn that have held true across decades and decades of research. Things like you need practice of new skills with immediate feedback. You need to be able to be actively engaged in that new material and talking to others about it to be able to connect it to things you already know. You need spaced repetition.

I get everyone wants to watch a two-minute video and then they're good, but that's not actually going to help you learn. The biggest thing is practice. The biggest thing is applying it and getting immediate feedback and that can be done in lots of really fun and engaging ways.

Kristen Eignor DiCerbo
Chief Learning Officer,
Khan Academy

All percentages are rounded to the nearest whole percentage number.

AI skills in education and work

Another dimension of the conversation around AI skills is not just teaching students to use AI but also using AI to teach. AI may offer an opportunity to deliver the kind of personalized learning support that educators have sought for years. There is already evidence of AI usage in educational settings providing graphical visualization tools, enhancing grammar, and improving language acquisition. Students also envisage more advanced usage such as assistance with literature research, summarizing, staying up to date with research and even hypothesis design (Chan and Hu 2023).

While this discussion is ostensibly about AI skills for Gen Z and the assumption that they will be taught and mobilized in an educational context, it should be noted that this could just as easily be seen as a business imperative. The largest obstacle businesses faces regarding AI adoption is a shortage of talent, with 45% noting that a lack of skilled employees is the biggest obstacle to their implementation of AI (IDC 2024). Typically, this obstacle would have business turning to educational institutions and expecting them to fill this training gap, but those institutions are themselves struggling to respond to AI issues at a pace that meets the needs of business, which points to a need for greater collaborations across all stakeholder groups.

If individual businesses fail to play their part in upskilling, they run the risk of a spiral where they both become uncompetitive in their operations and fail to attract or retain Gen Z talent that assumes AI to be a core part of business: such a risk could rapidly become existential.

The business case for training workers in AI skills seems quite clear. Today, business is already reaping an average $3.7 return for every $1 invested into AI, with top leaders realizing an ROI of $10.3 (IDC 2024).

average reaping

$3.7

return for every $1 invested into AI

With top leaders **realizing an ROI of**

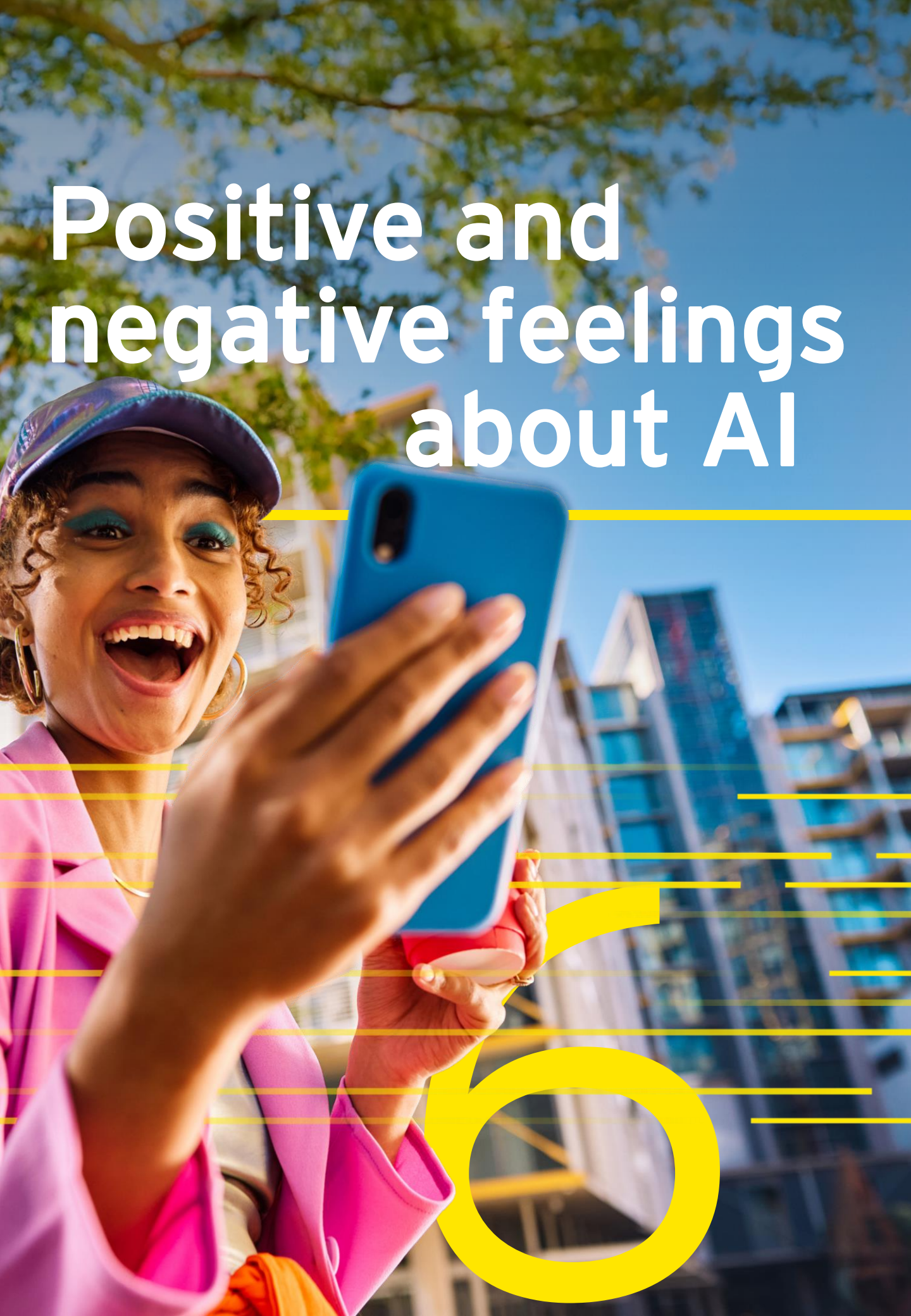
$10.3

(IDC 2024).

Businesses must ensure workers have the skills to continue delivering returns, and these skills often focus on the day-to-day use of AI tools and applications. At the same time, businesses must also ensure workers are sufficiently aware of the potential risks and negative impacts of AI – an exercise whose returns are less clearly quantified. Evaluating AI, while just as essential to business, is harder to measure than its day-to-day use.

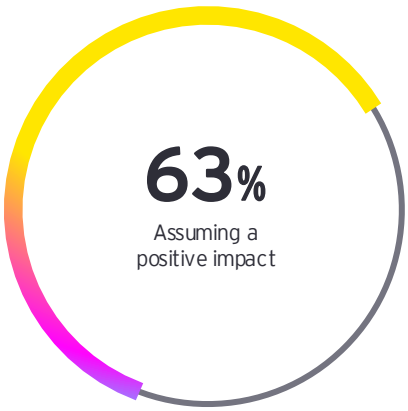
All percentages are rounded to the nearest whole percentage number.

Positive and negative feelings about AI



In general, Gen Z is upbeat about AI and feels it helps improve performance on daily tasks at school and at work. This tendency is not necessarily unique to Gen Z: **63% of business leaders feel optimistic about Gen AI** (INSEAD 2024).

Gen Z's levels of optimism, trust, and other feelings about AI are colored by culture and context as well as skill at evaluating it. Respondents in the Middle East, Africa and India have a higher trust in AI, whereas those in North America have the least. Likewise, feelings about AI may shift with what exactly is asked: in other studies, general public views on AI shift based on the application -- for instance, 88% of people think AI would be beneficial in assessing cancer risks, whereas only **37% of people feel it would be beneficial for assessing job eligibility** (The Alan Turing Institute 2024a).

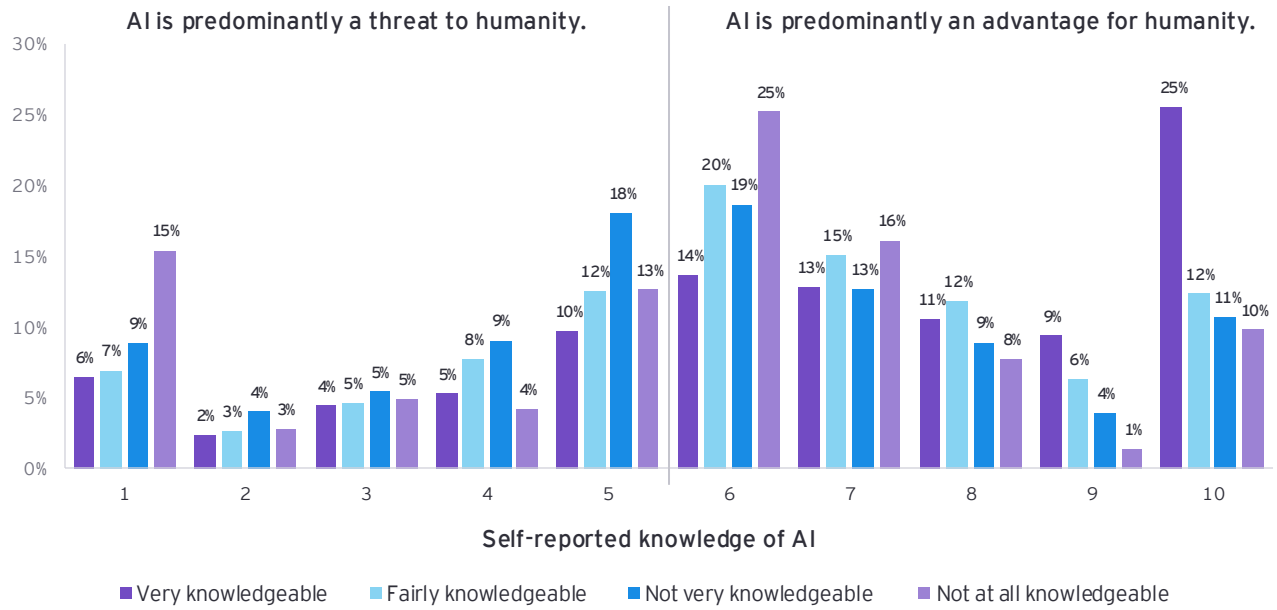


General optimism

The survey validates conventional wisdom about Gen Z's optimism toward AI and adds new dimensions. Notably, self-reported knowledge about AI is correlated with optimism about it (Figure 12).

Figure 12

Gen Z leans toward an optimistic view of AI and the higher the level of self-reported literacy, the more positively they view AI



This should be considered in light of the previously discussed point that high self-reported knowledge does not necessarily translate into high actual knowledge—which suggests a sunny outlook may be based, at least in part, on unreliable knowledge. Educators and businesses must therefore strike a balancing act. They will need to ensure that AI optimists are encouraged and empowered, but with a healthy measure of critical engagement. On the other hand, a different approach may be needed to encourage and empower AI pessimists.

All percentages are rounded to the nearest whole percentage number.

Specific contexts

When differences for self-reported knowledge are accounted for, levels of trust cluster around the midpoint (cautious) and at the extreme positive (boosters) (Figure 13). This pattern is generally observable across several trust-based questions such as:

1 **Can AI developers be trusted to do the right thing?**

2 **Should AI developers be more heavily regulated?**

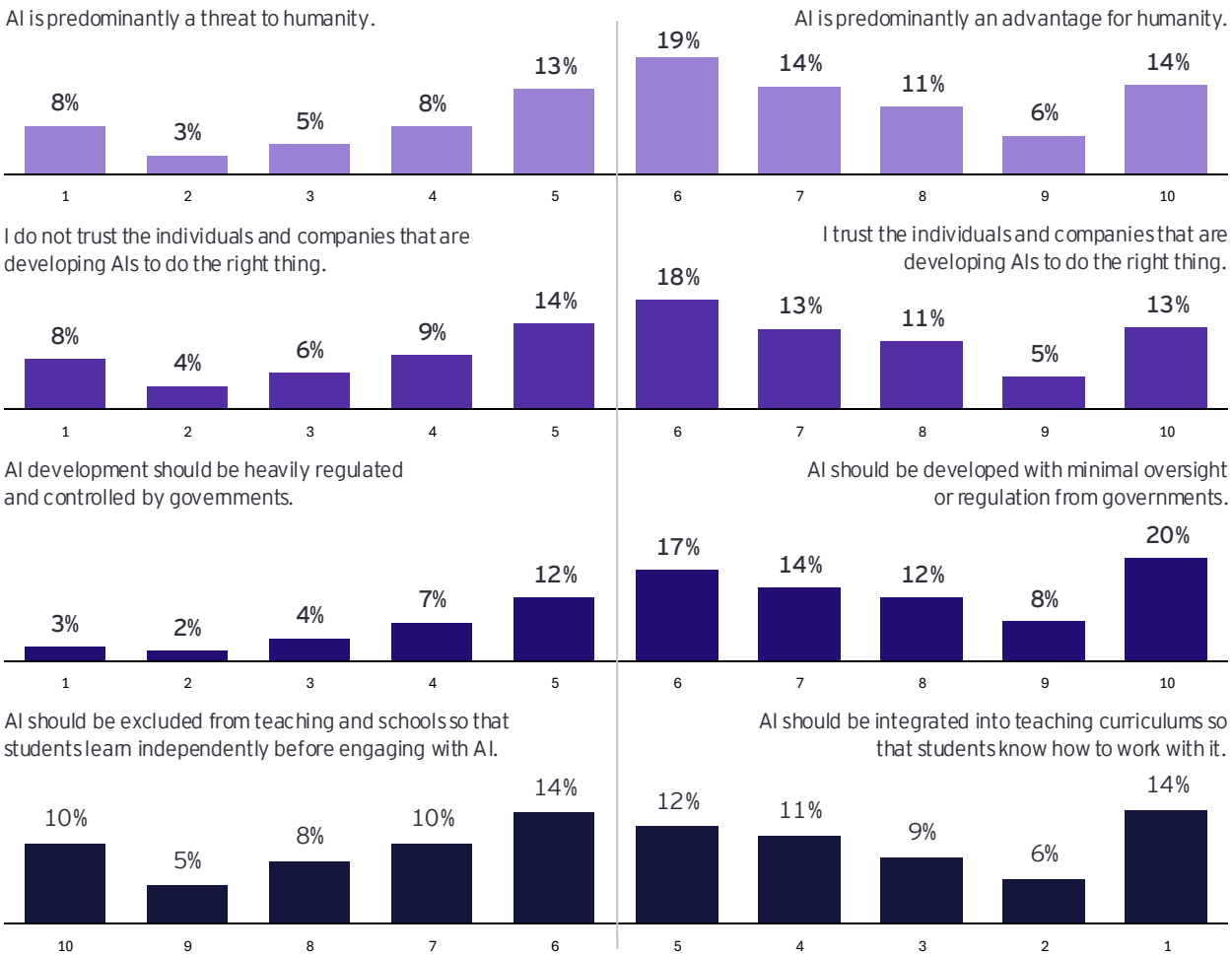
3 **Should AI be excluded from the school curriculum?**

Again, a balance should be sought that capitalizes upon this general optimism, but in a way that incorporates appropriate critical approaches that mitigate misuse.

Figure 13

Gen Z leans toward a favorable view of the use and development of AI

[N=5218]



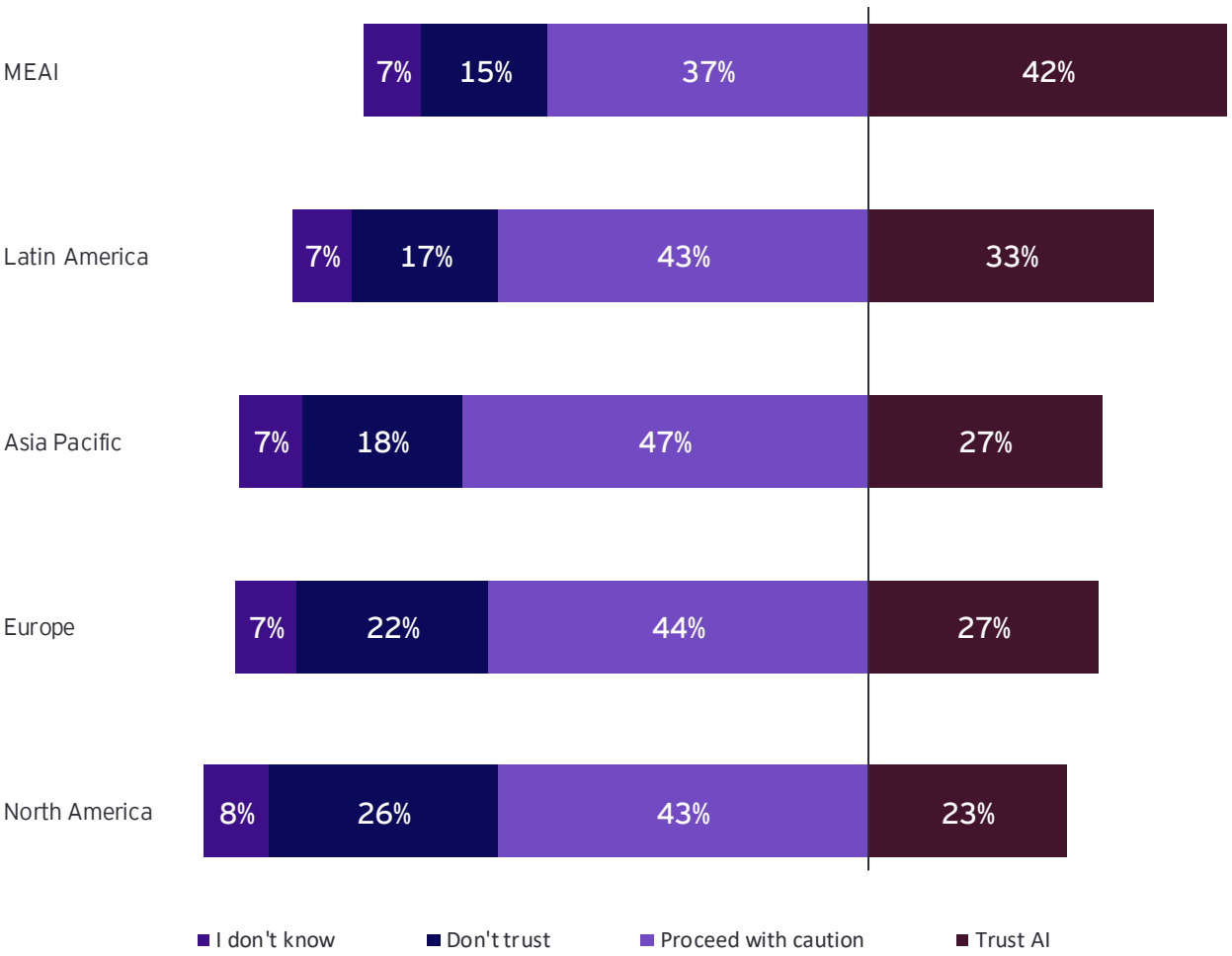
All percentages are rounded to the nearest whole percentage number.

However, these levels of trust should not be extrapolated across all Gen Z; there are significant regional differences. Respondents from the MEAI region trust AI more than their peers around the world (Figure 14), but their trust may be predicated on a different facility with evaluating it—this region scores well on understanding AI but does not perform as well on recognizing AI shortfalls.

Figure 14

Gen Z in the Middle East, Africa and India have the highest level of trust in AI use than those in North America and Europe have the lowest

Average trust across all applications of AI in the question 'To what extent do you trust AI in each of these scenarios? by region



Clearly, Gen Z views are not a global monolith. Their attitudes and values around AI are colored by culture and context. Minor variations also exist by gender. For example, with the question regarding trusting the individuals and companies that are developing AI to do the right thing, both men and women lean towards trusting them, but men slightly more so with 63% compared to 58%.

All percentages are rounded to the nearest whole percentage number.

Specific impacts

We also see a tendency in the survey toward positive feelings in terms of specific impacts. As seen in Figure 15, a modest majority of Gen Z is confident that AI tools help them learn faster and improve their performance at work and in education. Neutral feelings are also significant, but negative feelings are relatively rare.

Again, these global averages camouflage some regional variations. For example, the most-favorably perceived statement about AI helping faster learning has a global average of 56%; however, that figure is higher at 74% in MEAI and lower at 47% in Europe and 42% in North America. Similarly, in the context of AI's impact on careers, the most common answer in Asia-Pacific, Europe and North America was "neutral" but in MEAI and Latin America it was "agree" (but only marginally). There is little variation by age across the six statements.

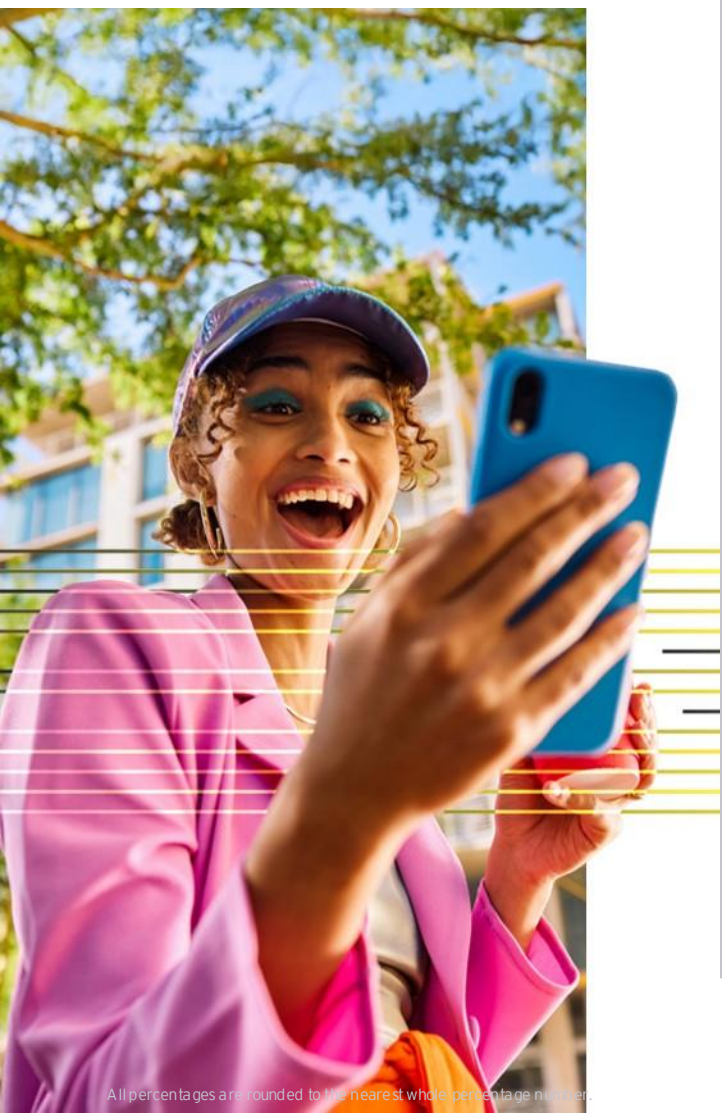
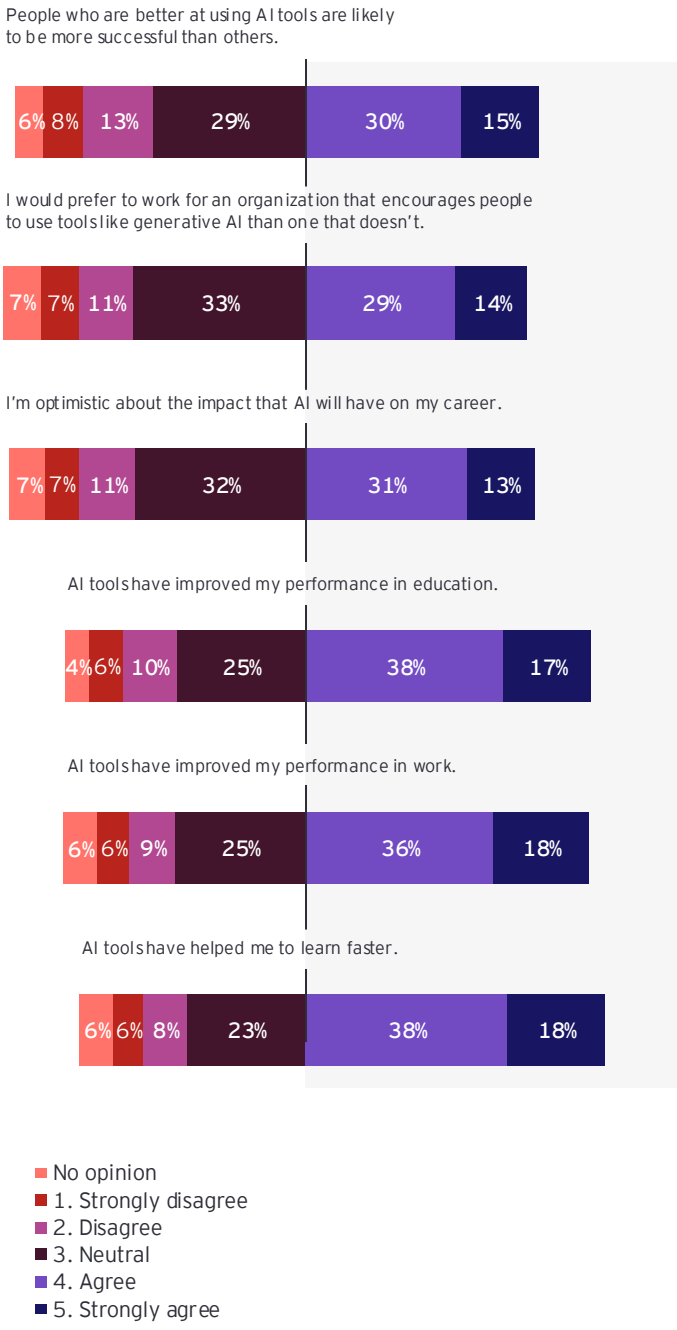


Figure 15

Gen Z agree most with the statement that AI tools have helped them learn faster and improved their performance at work

[Select one in each row. On a scale of 1 to 5, where 1 = Strongly disagree, and 5 = Strongly agree, or select No opinion] [N=5218]*



All percentages are rounded to the nearest whole percentage number.

Gen Z and AI in the future

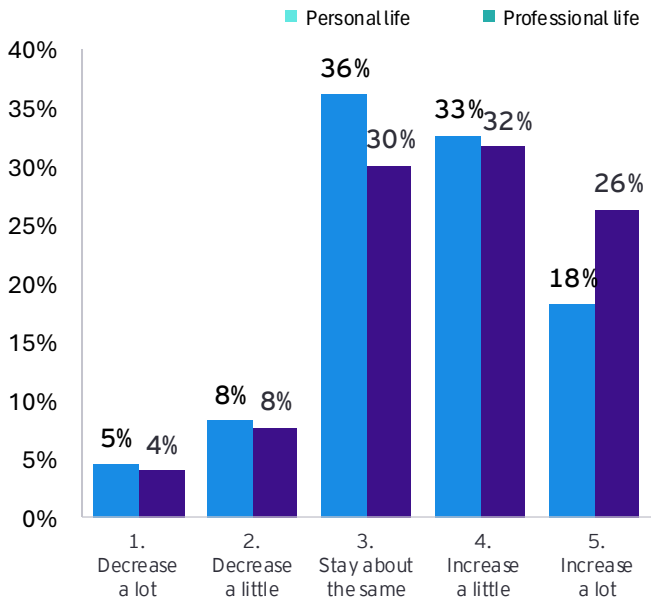
Expectations around use

Previous studies show that Gen Z believes AI is going to be significant in their future lives, with 77% believing GenAI will "have a big impact on their life" and 86% agreeing it is going to be "a big deal" (Touchstone 2023).

As expected, the majority of Gen Z survey participants expect their AI use to rise in the near future, especially in work contexts, where fully a fifth of respondents anticipate it will "increase a lot" (Figure 16). All stakeholder groups will need to consider how to best meet this expectation of increased demand for AI use, whether educators integrating AI more deeply into curricula, employers providing more on-the-job training and practice, or NGOs and policymakers offering more systematic guidance and support.

Figure 16

Gen Z expect AI usage to increase in their personal and professional lives



Perceived benefits and risks

The term "use" can be both positive and negative. As previously discussed, Gen Z is mostly optimistic about AI and this is reflected in assumptions about its expected future benefits, such as saving time on repetitive tasks (58%) and analyzing large amounts of data effectively (53%) (Figure 17).

Figure 17

Gen Z believes that the three greatest benefits of AI are saving time on repetitive tasks, analyzing large amounts of data, and reducing human error

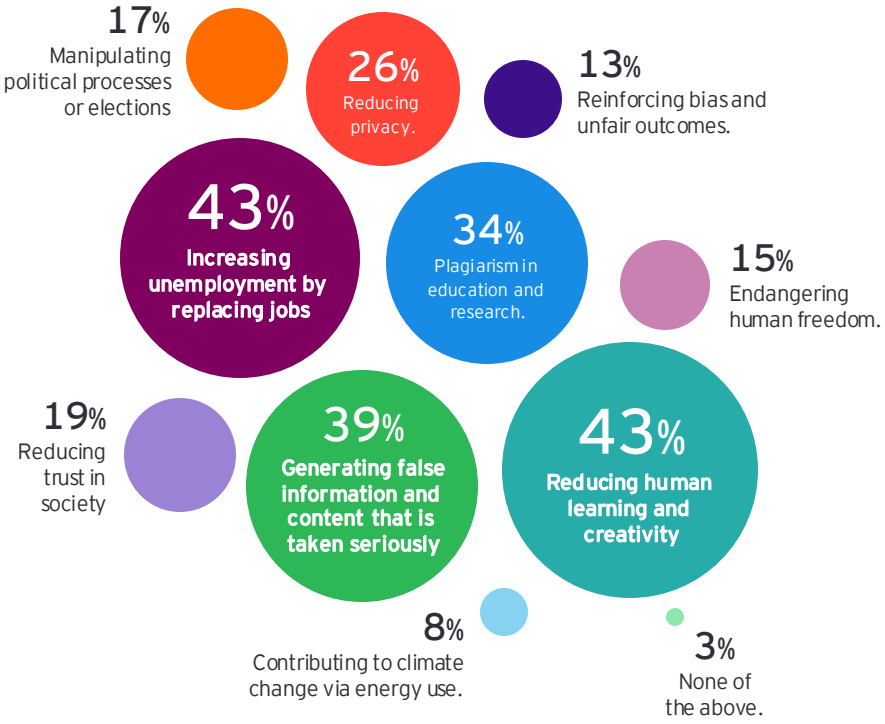
[Select up to three] [N = 5218]

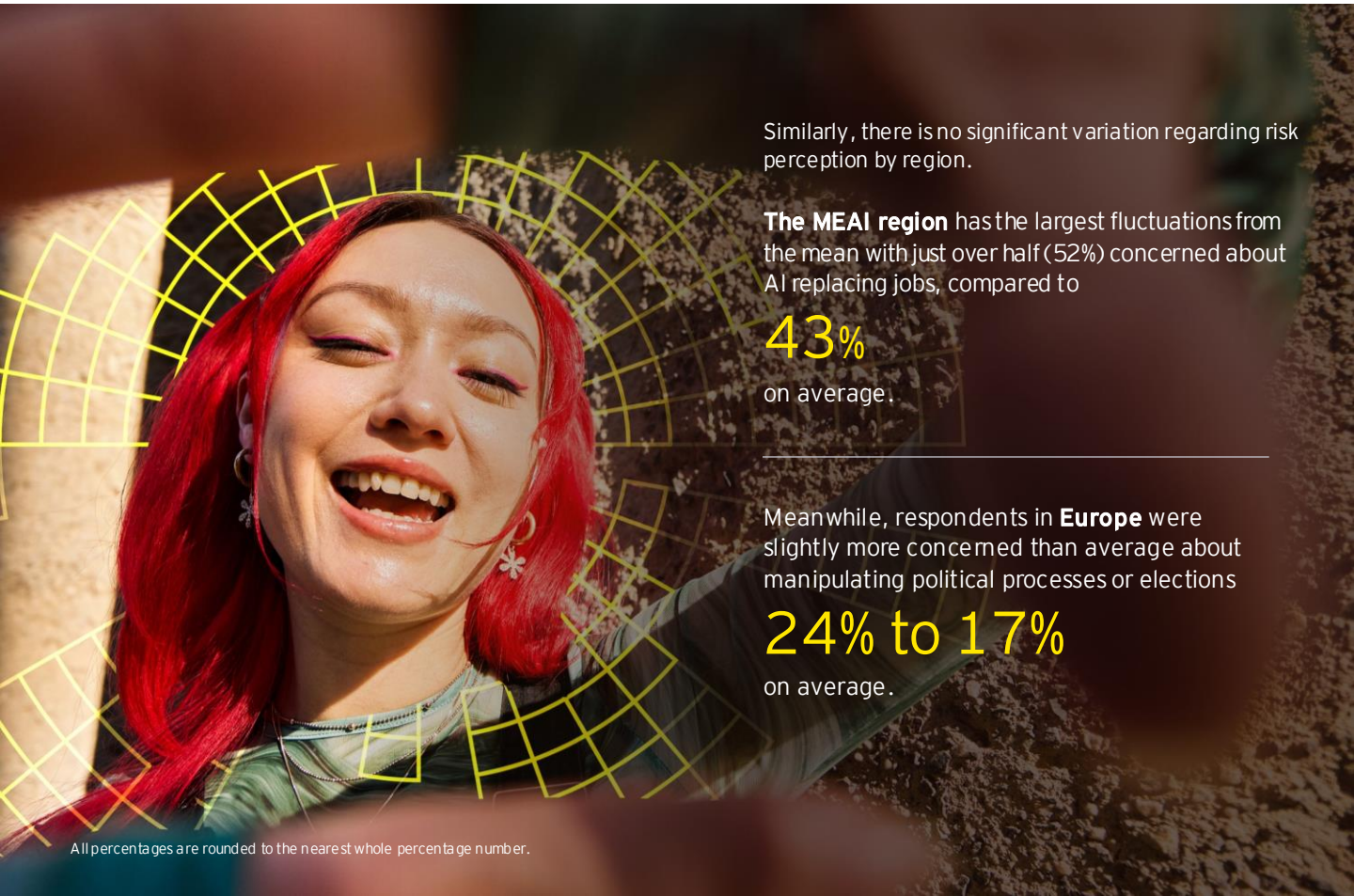
All percentages are rounded to the nearest whole percentage number.

These are broadly in line with previous findings from wider age groups (The Alan Turing Institute 2024a). But Gen Z is also mindful of the negative impacts, top-most of which were increasing unemployment (43%) and reducing human learning and creativity (43%) (Figure 18).

Figure 18

While Gen Z is largely positive about AI's future impact, concerns remain. When asked about AI risk, Gen Z believes that the three greatest risks of AI are increasing unemployment by replacing jobs, reducing human learning and creativity, and generating false information.





Similarly, there is no significant variation regarding risk perception by region.

The MEAI region has the largest fluctuations from the mean with just over half (52%) concerned about AI replacing jobs, compared to

43%

on average.

Meanwhile, respondents in **Europe** were slightly more concerned than average about manipulating political processes or elections

24% to 17%

on average.

All percentages are rounded to the nearest whole percentage number.

What's next?

Implications for business

Business is adopting AI tools at a greater pace than most other sectors, which is a double-edged sword. On one hand business is embracing the many opportunities that AI offers, but on the other the adoption is not always as informed as it could be by a holistic understanding of AI literacy. In the survey, Gen Z is certainly primed to engage more with AI in the workplace, with

expecting to use it more in their work lives over the coming year.

In the first instance, businesses must build some consensus around the appropriate use of AI. In some ways, the horse is out of the barn: today, generative AI usage jumped from 55% in 2023 to 75% in 2024. Implementation is fast, and within 24 months, most organizations plan to expand beyond pre-built AI solutions to custom-built (IDC 2024). While these businesses typically employ some form of policy around AI use there is not necessarily a shared understanding between those policies.

> “The time of questioning whether AI brings value has gone away. Regardless of size, every enterprise is thinking about their AI adoption … with that more and more enterprises are recognizing it’s important to train their employees in how to use these tools and provide good use cases.

Dr. Sooyeon Kim
AI Leader, EY South Korea

If finding skilled AI workers is a challenge, business might take the lead on upskilling Gen Z with AI skills to develop an AI-ready workforce. But the challenge for business is not just training Gen Z and other workers to use AI effectively and productively, but to adjust career pathways around the impact of AI.

Entry-level jobs are expected to be the most exposed to the effects of GenAI (IPPR 2024) which means that Gen Z will be given even greater responsibilities as they enter the workforce and will need to learn new skills to adapt. Business therefore needs to not only adjust for the day-to-day use of AI but also the career-trajectory implications, which can be seen as part of the AI just transition agenda.

The survey finding that Gen Z perceives AI use differently in work and educational settings should not be overlooked. Educational settings often put more emphasis on evaluation than business, yet it is evaluation that is the weakest area of Gen Z’s AI literacy. Business should ensure the AI training focuses not just on use but evaluation to minimize the chance of commercially-damaging outcomes (such as basing market research on made-up facts or replicating any biases that may exist within the AI tool). Ultimately, business may benefit from thinking of Gen Z not just as stragglers but over-confident stragglers, with the potential to deliver both great value and damage with their use of AI tools.

Employers should also be wary of treating “AI” as a homogenous whole rather than a multi-faceted phenomenon. The private sector may be the first major stakeholder group that does justice to this fact. As it leans into sector-specific AI applications, a distinction may emerge between core AI skills that cut across all jobs and more domain-specific skills that will look different for different people (in much the same way as today with digital skills, where some people are skilled in data analytics, others in rendering 3D models, and so on).

This diversification may have geographically and culturally specific dimensions, where different countries adopt different cultural norms and expectations around AI skills, in what could be described as the “vernacularization of AI literacy.” As the conversation around business and AI evolves, we should also be mindful that business engagement with AI is itself not a monolith, but differs significantly by industry and sector.

All percentages are rounded to the nearest whole percentage number.

> There's massive variance across industries. For example, in tech you have one universe in which all people talk about is AI, and everyone knows what AI is. However, across other industries, leaders face uncertainty due to AI and what it can mean for their business. Upskilling and leaning into AI literacy is critical at the leadership level.

Mar Carpanelli
Head of AI and Skills Research, LinkedIn

Various resources are emerging to help business in this process such as the Microsoft's WorkLab and its partner courses with LinkedIn, all of which offer practical guidance for using in the workplace, which can be of GenAI use not just to Gen Z but also their employers.

Implications for educators

Educators should take heed of the over-confidence that Gen Z displays with their use of AI tools. To address this, educators should develop AI literacy support that closes the gap between these "digital natives'" self-reports and their real level of expertise. This includes promoting "softer" skills that enable fruitful use of AI. The AI for Education report from Microsoft has three recommendations: teach students metacognitive skills; use AI tools as "provocateurs" to spark discussion; and avoid over-emphasis on technical skills (Microsoft 2023).

One of the key challenges is to equip educators with the knowledge and resources required to appropriately respond to AI and to offer the practice-based learning known to be effective.

For example, while

of teachers believe Gen AI should be harnessed in the classroom, less than 20% feel equipped to do so (HMH 2023). And while 58% of teachers said they would be interested in professional development around Gen AI, only 29% have received any (EdWeek 2023).

> Teachers should be doing things like having an assignment where you're allowed to use AI, but you also have to share a page of reflection about what suggestions from the AI did you take? What suggestions did you think weren't good and why and how did you use the AI to help you write this? That's building those skills where students are reflecting on the use of AI, and what should I accept and what shouldn't I accept?

Kristen Eignor DiCerbo
Chief Learning Officer, Khan Academy

There are also disconnects between attitudes toward GenAI among educators, with educational administrators being more bullish about it than teachers. The less enthusiastic teacher response about GenAI may naturally stem from a more practical and classroom-based concern about academic integrity. And there are disconnects between where educators see the value of AI for themselves (saving time) and their students (deepening understanding of concepts and lessons) (District Administration 2024).

Moreover, educators often develop curricula on timescales measured in years, whereas AI technologies are making profound leaps on timescales measured in months. In short, educators need to find the elusive balance between the academic best practice they embody so well and the agility to respond to an historically unprecedented pace of change.

Implications for educators

They also need to unpack the different and overlapping benefits of AI for them as educators and students as learners. The survey also shows a preference for AI learning in more "social" settings, which is a challenge for traditional educators. It is unlikely that educators and traditional education systems can address these issues on their own. More likely, they will need to partner with business and NGOs to best prepare educators and students alike with the learning contexts and skills required to capitalize upon the many opportunities from AI, while at the same time maintaining a core independence from business. Educators should also be mindful that they should teach more transversal fundamentals rather than responding to specific AI tools that will evolve faster than a curriculum can be updated.

> "It's about core, fundamental, future-proof skills that are not about using the technology that is found today. It's about learning the *human* skills that will help you learn whatever technology you need to learn for your job or make the critical decisions that you will need to make when working with these technologies. So, the skills that are not trendy, the ones that are classics that will remain relevant over time.

Mar Carpanelli
Head of AI and Skills Research, LinkedIn

Like other private-sector actors, the EY organization is seeking to enable more equitable access to AI education. In addition to the ambition of the EY Ripples program, EY is engaged with AI to drive progress toward the UN Sustainable Development Goals in three main areas: AI for social innovation, AI for education, and AI for the environment. Initiatives include a collaboration with Teach For All, providing guidance on a GenAI curriculum framework.

Similarly, TeachAI, an initiative led by Code.org, ETS, ISTE, Khan Academy, and the World Economic Forum, is focused on helping educators teach with and about AI. Its resources for education leaders and policymakers focus on policy, capacity, community and awareness. Microsoft has developed tools and resources to support AI skills and literacy including the AI for Educators learning path, Minecraft Education AI Foundations, and the AI Skills Navigator. These and other initiatives will ultimately build bridges between different stakeholder groups with an interest in AI.

Implications for governments, policymakers and NGOs

Gen Z, businesses and educators cannot respond to the challenges and opportunities of AI in a vacuum: they need support from governments, policymakers and NGOs. Again, balance must be sought. In the first instance, governments need to strike a balance between empowering the innovation and use of AI tools whilst acknowledging the potential negative impacts to society.

Even without AI, many educational institutions around the world are overstretched and in desperate need of support. AI adds another layer of difficulty into resourcing, but one which can leverage incredible efficiencies and deliver significant dividends if applied strategically.

Similarly, governments and their partners need to craft guiding policies for educators and businesses. Without good policy, those with an interest in AI are flying blind. For example, 80% of educational administrators in the United States do not have an AI policy to guide them at a school or district level, with a similar number of 74% of teachers lacking classroom policies (District Administration 2024). Policies are not just about how educators teach AI, but also how they learn about it themselves.

TeachAI, in partnership with major education policy organizations in the U.S. and abroad, have recommended Foundational Policy Ideas for AI in Education. These policies include:

1. **Foster leadership:** Establish an AI in Education Task Force to oversee policy development and implementation.
2. **Promote AI literacy:** Integrate AI skills and concepts, including their foundational principles, social impacts, and ethical concerns, into existing curriculum and instruction.
3. **Provide guidance:** Equip schools with guidance on the safe and responsible use of AI.
4. **Build capacity:** Provide funding and programs to support educator and staff professional development on AI.
5. **Support innovation:** Promote the research and development of safe and effective AI in education practices, curricula, and tools.

All percentages are rounded to the nearest whole percentage number.

Implications for governments, policymakers and NGOs

> Professional learning for educators [is a huge issue] ... educators have very little time on their calendars and huge amounts of work to do ... big workloads just in terms of doing the job of educating students. So, finding ways to make that professional learning happen, the time the funding for it is definitely a challenge and something that I think at a policy level we should be thinking about.

Kristen Eignor DiCerbo
Chief Learning Officer, Khan Academy

While it is reasonable for businesses and educators to create their own policies for best use and practice in these early days of AI adoption, moving forward there needs to be a more joined-up approach that enables society's different actors to lean into their existing strengths and expertise to ensure the best possible outcomes. NGOs can act as a connective tissue between governments, businesses and educators, bridging and filling gaps that currently prevent a fully systemic approach to AI adoption.

> We have a really big gap between how the tools have been developed and how they're going to be used in practice. We have a mismatch between the conversations that are happening in organizations and workplaces and schools, versus how people are actually using the tools. And that gap is not helping us think about how the tools can be used effectively, safely, fairly and in ways that help people understand what it is they're doing when they're using Large Language Models and other GenAI tools.

Gina Neff
Executive Director, Minderoo Centre for Technology & Democracy at the University of Cambridge and Professor of Responsible AI, Queen Mary University London

Given the inevitable diversification of AI applications and experiences, in practice this will require developing multiple policies and supports that do justice to different educational contexts, different sectors of employment, and different regional requirements. Ultimately, AI will become as broad a category as "business" and "education" are themselves, with all the granularity that implies and the sometimes very different types of conversations that need to be catalyzed among different stakeholder groups.

> There's a gap between what we want people to know and how we want people developing AI tools or applications. "Users" of AI need to be able to understand the risks and limitations. They need to be able to understand what makes particular kinds of answers or outputs trustworthy. They need to be able to sense check. They need to be able to be effective humans in the loop. But what we want people developing tools to understand are questions around social impact, questions around systems functioning, questions around responsible research and innovation. So, there is a there is a pretty big gap between that.

Gina Neff
Executive Director, Minderoo Centre for Technology & Democracy at the University of Cambridge and Professor of Responsible AI, Queen Mary University London

All percentages are rounded to the nearest whole percentage number.

Implications for Gen Z

Much of the discussion around AI literacy assumes it is somehow delivered "to" Gen Z in a similar manner to any knowledge transfer in an educational or training context. Certainly, in many situations, this will continue to be the case.

But for the time being we are at an unusual moment where AI technology is currently outpacing educational and training offerings. This implies that Gen Z may have a greater role to play in their own AI learning than for more traditional subjects. Already, this is reflected in the lived experience of our Gen Z survey respondents, who list educators and employers well behind other sources of AI information like social media, family and friends. It will therefore benefit Gen Z to continue this path of self-learning. Of course, there remains a role for educators and businesses to play here, empowering Gen Z with the curiosity and critical thinking required to successfully navigate this path and make career choices that complement instead of being made redundant by AI.

"

Deep and cross-functional expertise will be rewarded. AI could automate the bottom 50% of knowledge work. The bar will be higher for young people to get a job. Higher order thinking and context-specific decision-making is going to be key. For entry roles, the most tangible advice I could give is to be more cross-functional.

Yash Dutt
CEO and Founder, Yuva AI

"

Gen Z employees should prioritize developing critical thinking and creativity in their skill sets. Being well-equipped with these skills will position them to effectively leverage AI and augment their capabilities, and that group of people will excel.

Dr. Sooyeon Kim
AI Leader, EY South Korea

How confident might we be in the viability of such a process? That depends on our attitudes toward AI: those who are generally optimistic about the impacts of AI have an easier time imagining positive outcomes than those who are not. But it is worth returning to Gen Z's overall perceptions about AI: Gen Z leans toward optimism, and the more AI-literate they are, the more optimistic they are, which might imply a virtuous circle of increasing optimism in combination with increasing AI literacy. Equally, it is unwise to rely on such optimism as this may result in those who do not share it being left behind.

Optimism and initiative already shine through many of the Gen Z voices that can be heard in the following indicative free-text responses from the survey:

In their own words: Gen Z and optimism

"

I use AI for fun and learning.

I use it to generate creative ideas for my art projects.

AI helps me with my homework by providing explanations and examples.

AI aids my learning and creativity and also plays an integral role in my education and entrepreneurial development.

Of course, there are responses more concerned with negative impact, but the survey shows that many in Gen Z align with AI's ability to help them ask better questions to achieve better outcomes.

All percentages are rounded to the nearest whole percentage number.

Choosing a path

In the previous section we have observed the way AI has found its way into the public domain at a pace that is hard to keep up with.

There is a significant amount of optimism, not always backed up with the required knowledge and skills. There is a confident sense of the direction of travel of where we need to go as a society, but perhaps less confidence about the practicalities of embarking upon that journey and the best way to empower this generation of early AI adopters.

While this discussion is ostensibly about Gen Z, there are also broader implications. Certainly, Gen Z is most exposed to the impacts of AI, and because they make up the bulk of today's students, formal education offerings around AI are particularly pertinent to them as a group. However, AI literacy needs a much wider take-up than Gen Z alone. It's possible that the Boomer generation might be able to escape needing to use AI tools, but it will certainly be necessary to also upskill Millennials and Gen X workers to ensure they remain professionally relevant, especially as they increasingly defer retirement and extend their working lives (Pew Research 2023). Furthermore, older workers will need their own AI literacy to better provide an enabling environment for the development of Gen Z's AI literacy. It will also be necessary to adapt expectations around AI literacy for specific types of users, such as the AI Student, Worker and Citizen archetypes discussed above.

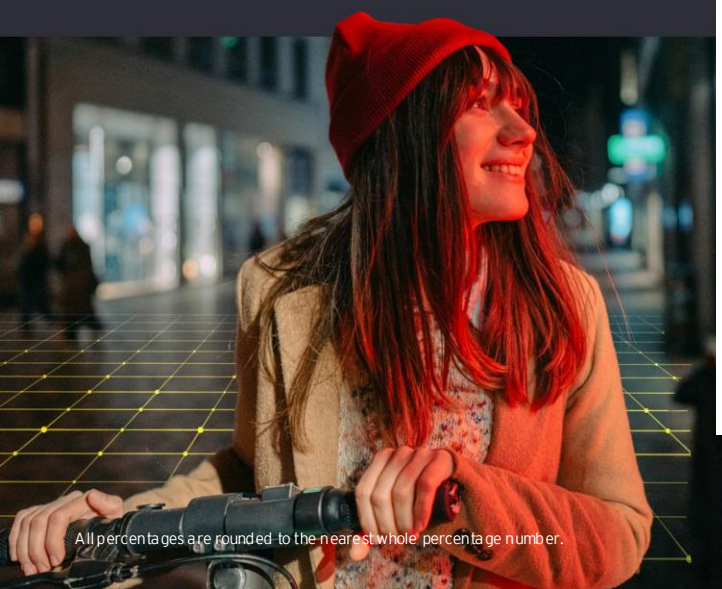
Despite tendencies to optimism, the potential negative outcomes of the AI revolution cannot be glossed over. We have already seen that Gen Z careers are particularly exposed to AI, and they will be given greater responsibilities. But Gen Z is not the only group at risk: women and lower-income workers are also disproportionately impacted by AI (IPPR 2024). A mishandling of AI literacy could therefore result in further entrenchment of the wealth gap that has widened in recent decades (Blanchet and Martínez-Toledano 2023).

> "I fear the future for the children within poorly resourced schools, honestly. It is hard to see a world where without private intervention or massive upheaval, that kids are taught the foundational skills they need in order to use these AI tools effectively or think in the way they need to thrive. They also need to be honing enough depth to be more useful than AI in a field which will get increasingly difficult if you don't have the support to explore subjects adequately or get the right mentoring.

Yash Dutt
CEO and Founder, Yuva AI

An appropriate handling of AI can act as a powerful force for good, AI can act as a powerful force for good, offering a resolution to those social inequalities that have so far been difficult to rectify. In particular, the speed of AI offers an unparalleled opportunity to implement change at both pace and scale.

However, it will not be possible to capitalize on this opportunity unless everyone can participate. To ensure this outcome there is no choice but to centralize the AI just transition. In the same way the just transition to a green economy focuses on putting people at the heart of the global journey toward decarbonization, so too the AI just transition, ensuring that everyone can benefit from a better world. Businesses, educators, governments and NGOs all have a role to play in designing and building this better future and delivering a legacy that benefits not just Gen Z but everyone.



> "The rapid rise of AI brings both opportunities and challenges. While Gen Z is most exposed to its impact, ensuring AI literacy across all generations is crucial to closing skill gaps and preventing further inequality. Only through collaboration between educators, businesses, and governments can we create a future where AI benefits everyone.

Narmeen Makhani
Associate Vice President,
Product Engg. & AI, ETS

All percentages are rounded to the nearest whole percentage number.

Appendices

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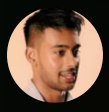

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Kite insights.

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TeachAI

TeachAI, an initiative led by Code.org, ETS, ISTE, Khan Academy, and the World Economic Forum, helps policymakers and educators act on the implications of AI to improve education systems. Its understanding of AI literacy involves the knowledge, skills, and attitudes needed to understand how AI works, including its societal and ethical impacts, and how to use AI effectively and responsibly across various contexts and disciplines. It draws from diverse subjects including computer science, mathematics, ethics, and psychology.

Among other resources, TeachAI produces: the AI Guidance for Schools Toolkit designed to help education authorities, school leaders, and teachers; Foundational Policy Ideas for AI in Education; and Guidance on the Future of Computer Science Education in an Age of AI.

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