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Artificially Intelligent?

Children's and parents' views on generative AI in education

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internet matters.org

Foreword

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Generative AI has been making headlines since ChatGPT – the large language model from Open AI – launched just over a year ago. In this relatively short space of time, the generative AI market has evolved at warp speed. Generative AI chatbots and tools are now widely accessible and used by many of us for a wide range of tasks: with a simple prompt, tools like ChatGPT, Gemini (formally Bard from Google) and Midjourney are able to write essays and poems, produce life-like images, and generate computer code within seconds.

For all their impressive skills, the rapid advance of AI tools has also set off alarm bells. It is becoming increasingly difficult to establish what is real and what is not – even for those that work in or around technology – and a wide set of safety concerns have already emerged.

Against this backdrop there is much speculation about how AI could or should transform children's education, potentially creating efficiencies within the school system and reducing teacher workloads. However, there has been limited attention given to the attitudes and concerns of families and children

and the impact AI will almost certainly have on them. As the debate continues about how to best teach children media literacy skills, so they can stay safe and well online, the impact of AI cannot be ignored.
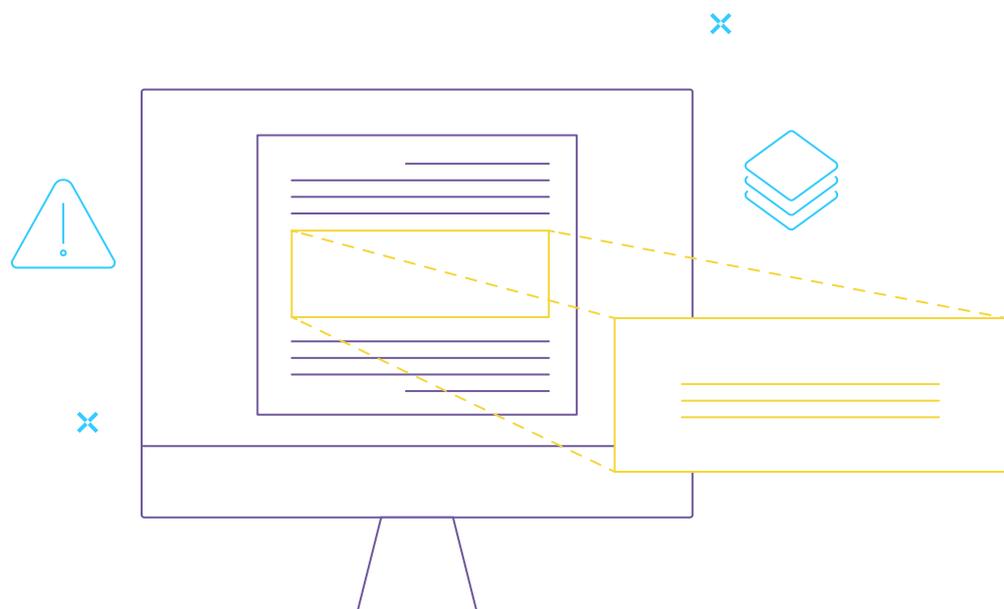
Our research shows that it's not just teachers using generative AI to reduce their workloads: almost one in four children are already using AI to help with their homework and schoolwork, with this figure surely set to rise. But parents are still in the dark, with the majority receiving no information from their child's school on how AI is being used to teach students. A communication gap between parents and schools perhaps shouldn't come as a surprise, as there is a lack of guidance for schools on how they should be using AI, let alone how they should be communicating about it to parents and children. This needs to change.

I hope that this report serves as encouragement for all of us to take a wider focus on the implications of AI, and how it is changing children's education in the here and now, as well as possibilities for the future. Keeping pace with this rapidly evolving technology demands a collaborative effort in order to support children to navigate the complexities of AI with confidence.

Contents

Executive summary

The use of artificial intelligence (AI) in education has received increasing attention in recent years, particularly over the past 12 months with the rise of ChatGPT and other publicly available chatbots. Notably, stories have reported on use of AI tools by pupils to complete homework, and by teachers to draft lesson plans.[1] These instances highlight the evolving role of AI in shaping how education is delivered and experienced, presenting both opportunities and challenges to children and schools. Against this backdrop, we set out to explore the current use of AI tools by families, as well as the views of children and families on the use of generative AI in education.

The key findings are:

Parents and children are split on how they perceive the impacts of generative AI: parents are more concerned than excited, whereas for children the opposite is true.

- 35% of children express a positive view, considering AI beneficial, while 20% view it negatively.

- This contrasts with parents' feelings, where twice as many parents (34%) express concern compared to excitement (16%) about the influence of generative AI on their children's lives.

There are mixed attitudes towards the use of generative AI in education.

- There's a great deal of uncertainty, with nearly half of parents and children (46% of parents and 49% of children) unable to say if they believe the use of generative AI in education will be a positive or negative thing.

- However, as with their views towards generative AI generally, children tend to be more optimistic, with 41% believing AI will be beneficial in the context of education, compared to 29% of parents sharing the same perspective.

- Additionally, our findings reveal that 60% of parents have not been informed about how their child's school plans to use generative AI tools to teach students.[2] This lack of communication may contribute to parents' varying levels of concern or uncertainty about generative AI's impact on children and use in education. However, this also raises the question of whether some schools are considering generative AI at all, or whether they just haven't thought about it yet.

There is widespread engagement with generative AI among children, particularly for help with homework.

- 44% of children are actively engaging with generative AI tools. This use is particularly high amongst 13–14-year-olds, with over half (53%) having used generative AI.

- As household income increases, children are both more likely to have used ChatGPT (the most popular generative AI tool used amongst children) and heard of it. In households where income is less than £10,000 per year, 11% have used it. This number increases steadily, with 45% of children having used ChatGPT in households where income is £80,000 or above.

- Over half of children (54%) who are using generative AI tools, have used them to complete or help with homework or schoolwork; this could mean almost 1 in 4 children are using generative AI as part of their schooling.

- However, 60% of schools haven't spoken to students about how they can use AI in relation to homework and schoolwork.

- We also find that 13–14-year-olds are more likely than other age groups to be engaging with generative AI to complete or aide homework and schoolwork, for example of those using Gemini (formally Bard from Google) to support their homework or schoolwork, 54% are aged 13-14, compared to 24% aged 11-12 and 21% aged 15-16.

- Vulnerable children are also more likely to rely on generative AI to complete homework and schoolwork activities, with 41% of vulnerable ChatGPT users using it to complete work compared with 36% of all users of ChatGPT.

Parents and teachers can't tackle this alone - ensuring the safe and positive use of these tools by children will take a collective effort.

- The Government's recent actions addressing AI policy and regulation in schools are welcome, however we think that these actions should be built upon and broadened as an urgent priority.

- As it stands, there are no national guidelines to help schools understand how they can or should be using generative AI, or what needs to be done to manage its impacts (e.g. ensuring fairness for students). In the absence of national guidelines, schools are taking very different approaches, with some more proactive than others at realising the opportunities of generative AI and reducing risks. The Government should provide comprehensive guidance to help level the playing field.

- At Internet Matters, we recognise that children from areas of high financial deprivation often have less access to digital devices and data than their peers.[3] The increasing use of tech in education, accelerated by the growth of generative AI, means that it is more important than ever for all children to be given access.

- Training should prioritise teachers in the highest-needs areas (for example areas of high financial deprivation) to ensure equality of safe access and to avoid widening existing digital divides.
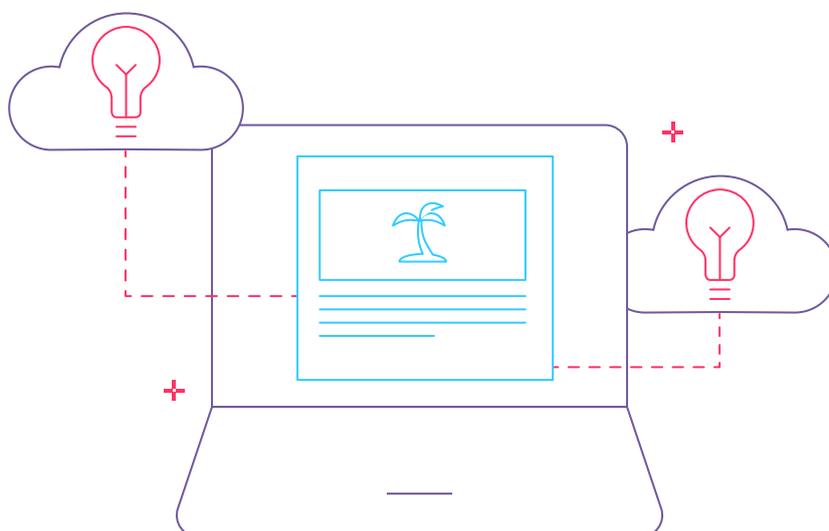
Introduction

This report explores the introduction of generative AI tools to education – a major shift that has the potential to revolutionise education, and which has sparked both excitement and worry among parents and children.

The lack of consensus among parents and children is not surprising, given that these tools are relatively new, and all of us – children, parents and teachers included – are grappling with the potential applications and impacts.

This briefing presents new evidence on how children are using generative AI tools (in general and, specifically, in education) while also exploring families' awareness and opinions on this emerging technology. While some parents and children advocate for its integration in classrooms, others express reservations, highlighting the need for clearer understanding and communication regarding the benefits and risks of AI in education.

While this report focuses on the use of generative AI in education, it is important to acknowledge that the impact of AI on children and families ranges across a spectrum of topics that extend beyond the scope of this report. Such areas of concerns include the creation of AI-generated Child Sexual Abuse Material (CSAM)[4] and child-on-child abuse,[5] grooming,[6] and the deliberate dissemination of highly convincing mis- and disinformation.[7] Although this report does not focus on these topics, we recognise their significance and the need for ongoing research to understand the full range of risks posed by generative AI and potential mitigations.
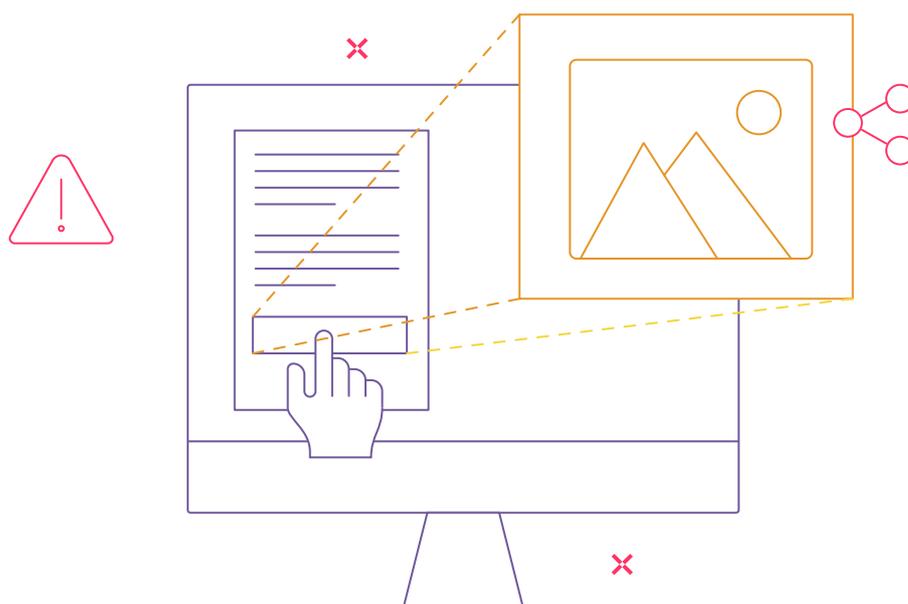
Background

> ***Artificial Intelligence (AI):***
> *a machine's ability to perform certain tasks that would typically require human knowledge and logic, such as learning, reasoning, speech recognition and problem solving. AI is normally developed with machine learning algorithms which are used to identify patterns within datasets to establish rules.*[8]

> ***Generative AI:***
> *a form of artificial intelligence which produces original text, images and audio. Generative AI uses models, such as large language models (LLMs), which are trained on large datasets used to craft new content, such as text, image or audio. The model draws on patterns learned during the training process.*[9]

In the last 12 to 18 months, we have witnessed a significant advancement in the use and complexity of AI tools – specifically those that are able to generate new content (generative AI).

Generative AI has been integrated into our lives for a considerable amount of time – for example, artificial intelligence is fundamental to the operation of voice assistants such as Amazon's Alexa and Apple's Siri. These technologies understand voice commands and can complete simple tasks such as replying to text messages, setting alarms, and searching the internet.

Although this technology is not new, recent advances coupled with greater accessibility have made generative AI more accessible to the general public, as well as able to respond to complex tasks and commands.

The most widely known generative AI model is OpenAI's GPT-3.5 and GPT-4, which serve as the foundation for chatbots such as ChatGPT. These models not only understand human input, but also generate human-like content, such as text and realistic images. Just two months after it was launched in November 2022, ChatGPT was estimated to have reached 100 million monthly users, making it the fastest-growing internet app of all time.[10] The chatbot went viral on social media, with users sharing examples of what it could do such as writing essays and generating computer code.

With increasing focus on the possible risks that generative technologies may pose, AI platforms and applications are beginning to face increased regulation. For example, in December 2023 European Union officials reached a provisional agreement on the world's first laws to regulate the use of AI, which include safeguards on the use of AI in the EU and limits on its adoption by law enforcement.[11]

The UK government has recognised the significance of AI technologies and how they impact various industries.

- Initiatives like the Centre for Data Ethics and Innovation (CDEI) offer guidance on the ethical use of AI, while discussions on establishing a legal framework to address potential risks and challenges associated with AI applications are underway.

- Notably, in March 2023 the Department for Science, Innovation and Technology (DSIT) published an AI white paper which sets out the government's proposed regulatory framework to ensure the risks posed by AI are addressed.[12]

- Following this, in November 2023 Prime Minister Rishi Sunak launched the new AI Safety Institute, serving as a global hub "tasked with testing the safety of emerging types of AI."[13] Although this Institute is not designed to regulate AI policy in the UK, it was created to collaborate with different organisations, from government, academia, civil society and the private sector to avoid the duplication of efforts in this space.[14]

It is important to note that these efforts discussed above primarily pertain to the broader AI landscape. Parallel to these discussions, there is a separate set of thinking developing around the specific applications of AI in education. Since March 2023, the Department for Education (DfE) have taken several steps to understand and shape the growing role of generative AI in schools, including:

- Publishing a position paper on generative AI,[15]

- Opening and publishing a call for evidence for schools and the ed tech sector,[16]

- Investing in AI tools for teachers,[17]

- Hosting a hackathon for teachers and school leaders [18]

- Commissioning and publishing a review of the risks and opportunities that generative AI poses to the education sector.[19]

In addition to these outputs, DfE have stated that they will be publishing a report on the outcomes of the generative AI Hackathon in Spring 2024.[20] The Department have also committed to updating their policy paper on generative AI in education as more research is conducted, while also announcing these updates in reports, blogs and webinars.[21]

While these actions and outputs are welcome, we remain concerned that the Government is focussed on a fairly narrow range of specific use-cases for teachers, such as drafting lesson plans or marking exam papers in order to reduce staff workload. More complex and fundamental questions about the integration of AI tools in learning, and what this may mean for the current and future generations remain largely unaddressed. We also note that the voices and views of children and parents are largely missing from government-commissioned research and ongoing policy development.

With this paper, we hope to start a dialogue with families about the use of AI tools in schools including the current state of play, as well as hopes and concerns for the future. We do not claim to have the full picture or definitive answers to these questions, but we hope that the paper offers a helpful starting point for policymakers to consider the wider needs of children and parents.
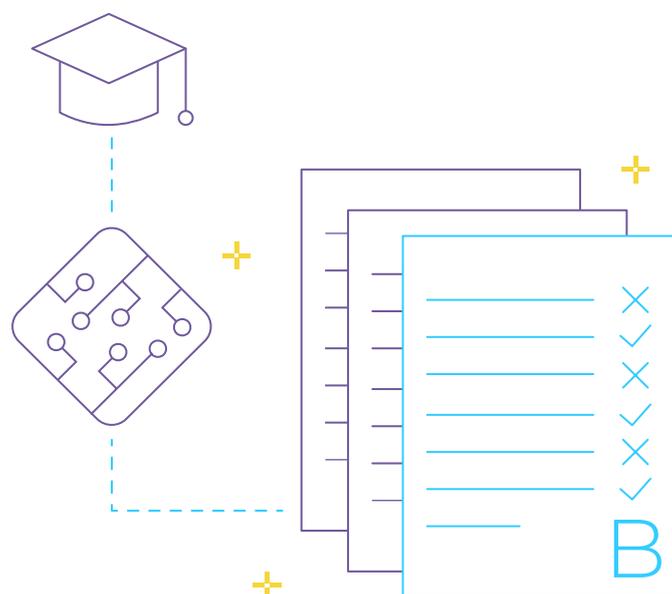
Our survey

Families' understanding of AI and its use in education

This paper seeks to understand more about how parents and children are thinking about and using AI tools, with a particular focus on education and learning, in order to help inform these early efforts to address the impact of AI on the schools system.

Internet Matters conducts a twice-yearly, nationally representative survey of approximately 2,000 parents of children aged 4-17 and 1,000 children aged 9-17 in the UK. In November 2023, we asked all parents and a subset of children aged 11-17 (742 in total) a specific set of questions around the use of AI, focused on their usage, views and attitudes. All children (1,000 in total) were asked a set of questions about the impact of AI on their education.

Please note that all data included in the report is rounded to the nearest percentage point. Percentages may not total 100 due to rounding.

Our findings reveal a divergence in attitudes among both parents and children regarding the integration of AI in schools. While there is high awareness of AI, there exists uncertainty and varied opinions on whether and how this emerging technology should be integrated into education.

The table below provides an overview of the tools we asked survey respondents about. The rows shaded in purple are chatbots, while the blue rows are image generators.

Overview of the generative AI tools used by survey respondents

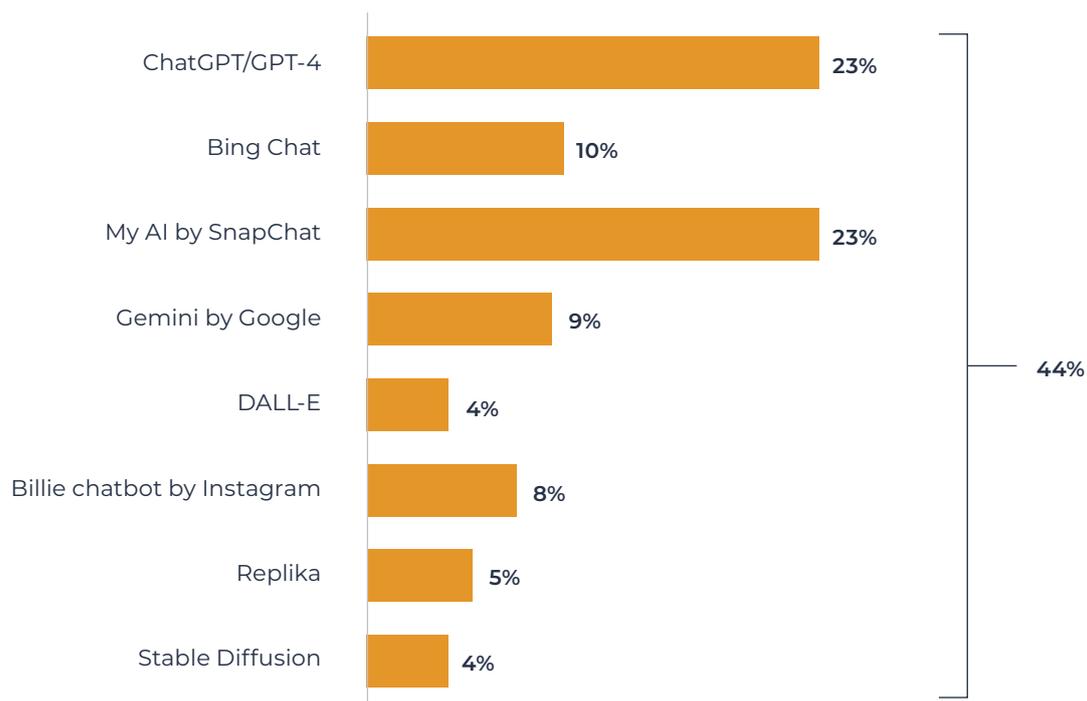| Product	Developer	Year launched	Minimum age	Description
ChatGPT/ GPT-4	OpenAI	2022	13 (children aged 13 to 18 must obtain parental consent)	Chat GPT is a generative AI chatbot which is designed to understand or generate human-like language.[22]
Bing Chat	Microsoft	2023	13+	Bing Chat is a generative AI chatbot created as a built-in feature for Microsoft Bing and Microsoft Edge.[23]
Gemini	Google	2023	18+ (no age assurance in place, links to a user's Google account)	Gemini is a generative AI chatbot developed by Google.[24]
Replika	Luka, Inc.	2017	18+ (no age assurance in place)	Replika is a generative AI chatbot which is trained on having its users answer a series of questions about themselves.[25]
My AI	Snap Inc.	2023	13+	My AI is a generative AI chatbot created as a built in feature for Snapchat.[26]
Billie	Meta	2023	13	Billie is a generative AI chatbot on Instagram which has the likeness of various celebrities such as Kendall Jenner and Tom Brady.[28]
Stable Diffusion	Stability AI	2022	Varies by location[29]	Stable Diffusion is a generative AI model which produces images based on text prompts.[30]
DALL-E	OpenAI	2021	13+ (children aged 13 to 18 must obtain parental consent)	DALL-E is a generative AI model which produces images based on text prompts.[31] This model is similar to Stable Diffusion.

Families' awareness and usage

Awareness of AI concepts

Our survey reveals that 44% of children are engaging with generative AI tools. This figure rises to more than half (53%) of 13-14 year olds. This underscores the influence and adoption of generative AI, especially among children in their early teenage years. Nearly as many children are using generative AI tools as are regularly using smart speakers.

Have you ever used the following?
(% of all children aged 11-17)

Tool	%
ChatGPT/GPT-4	23%
Bing Chat	10%
My AI by SnapChat	23%
Gemini by Google	9%
DALL-E	4%
Billie chatbot by Instagram	8%
Replika	5%
Stable Diffusion	4%

44%

When it comes to specific generative AI tools, the ones most used by children are ChatGPT (23%) and My AI (23%). Of the children who have used ChatGPT and My AI, 91% have used it within the past 12 months.

Our survey shows that as household income increases, children are also both more likely to have heard of ChatGPT (the most popular generative AI tool used amongst children) and used it. For example, in households where income is less than £10,000 per year, 44% of children have heard of ChatGPT and 11% have used it. This number increases steadily, with 69% of children having heard of and 45% of children having used ChatGPT in households where income is £80,000 or above.

Children in households by income bracket who have used and/or heard of ChatGPT
(% of children who have used and/or heard of ChatGPT)

■ Have heard of ChatGPT   **■ Have used ChatGPT**

Income bracket	Have heard of ChatGPT	Have used ChatGPT
Up to £10,000 a year	44%	11%
£10,001 to £30,000 a year	44%	13%
£30,001 to £50,000 a year	59%	21%
£50,001 to £80,000 a year	65%	28%
Over £80,000 a year	69%	45%
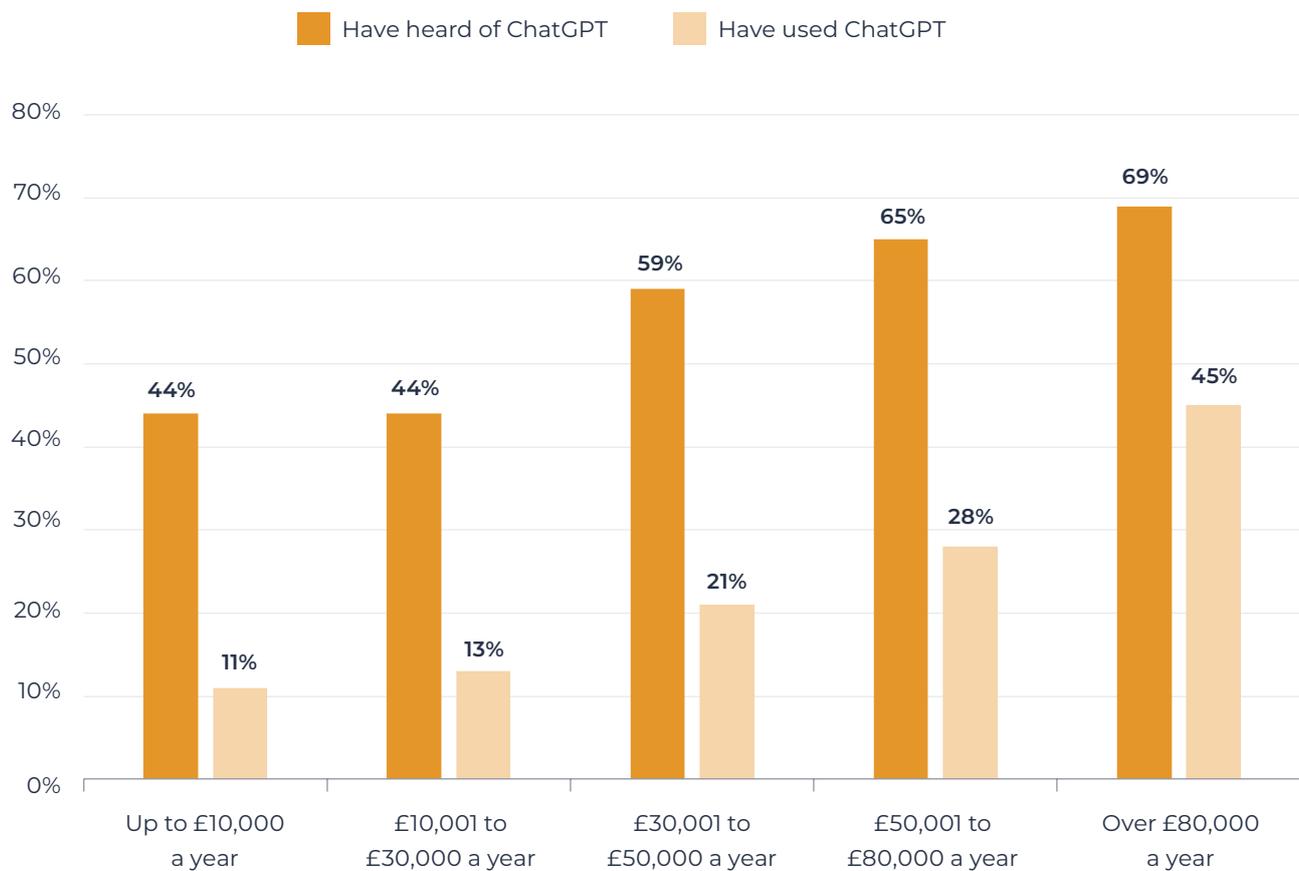
While children in lower income households are less likely to engage with generative AI tools such as Chat GPT, it is positive to see that children entitled to free school meals (FSM), which is often used as a proxy disadvantage, are not significantly less likely to be educated on generative AI. 45% of children entitled to FSM saying their teachers have spoken to them about generative AI, which is similar to those not entitled to FSM at 47%.

Our survey finds that parents also have a generally high awareness of AI concepts. Four-fifths of parents say they know a bit or a lot about the term artificial intelligence, and 44% of parents are engaging with generative AI tools. It is interesting to note that this is the exact same percentage as children who engage with these tools (44%). When it comes to how parents are using these tools, we found that they are most likely to have used ChatGPT (29%) or Bing Chat (17%). Although parents' and children's use of ChatGPT is similar, our survey finds that many more parents are using Bing Chat (17%) compared to children (10%).

Have you ever used the following tools or services?
(% of all parents)

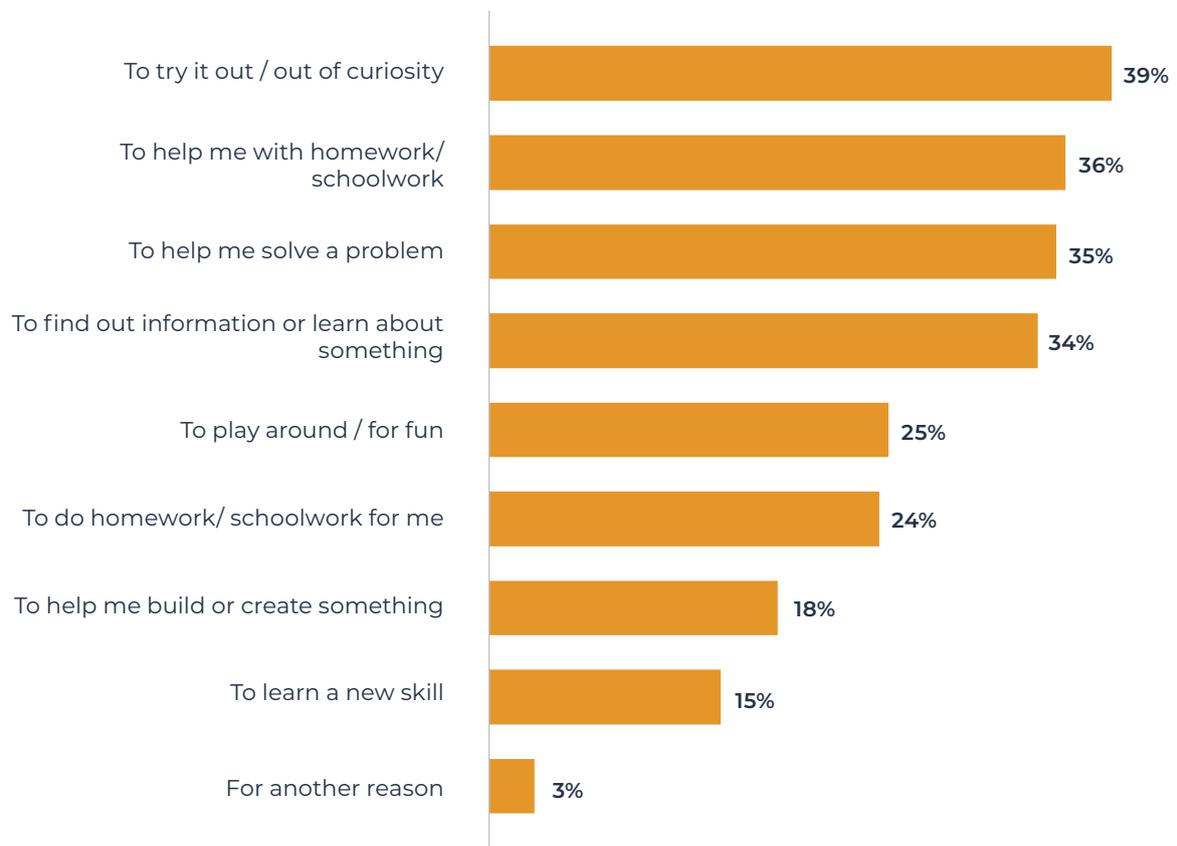| Tool	%
ChatGPT/GPT-4	29%
Bing Chat	17%
My AI by SnapChat	15%
Gemini by Google	14%
DALL-E	9%
Billie chatbot by Instagram	9%
Replika	6%
Stable Diffusion	6%

(Overall: 44%)
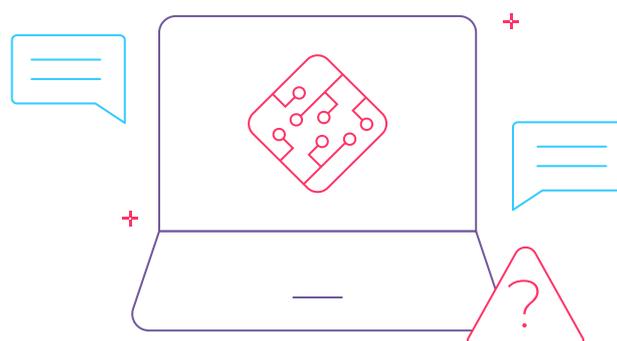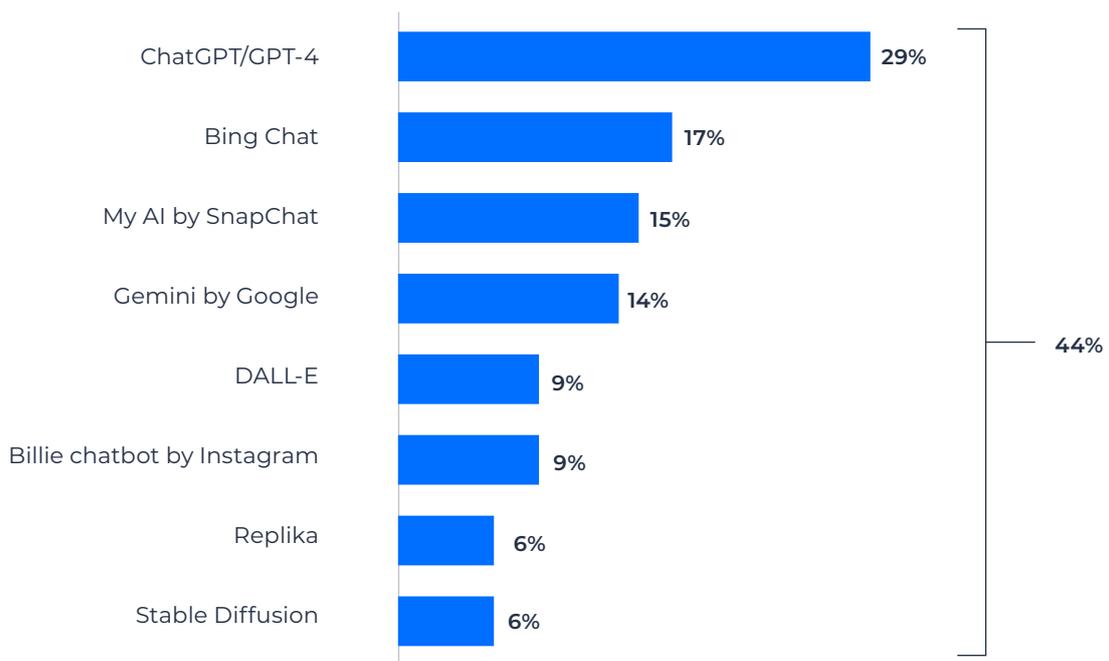
Popular platforms

ChatGPT

Diving deeper into the specifics of ChatGPT usage among children, our findings reveal that over a third of children (36%) who use ChatGPT have used it for assistance with schoolwork. An even higher proportion of vulnerable children (41%) used ChatGPT for help with schoolwork. This includes children with special educational needs and disabilities (SEND), and children with mental health problems. This highlights the possibility that vulnerable children may be leveraging generative AI to help them overcome certain learning barriers and enhance their learning experience. However, it may also signal that these children are struggling in school and not getting the support that they need, resorting to the use of ChatGPT.

What have you used them [generative AI tools] for?
(% of children who have used ChatGPT)

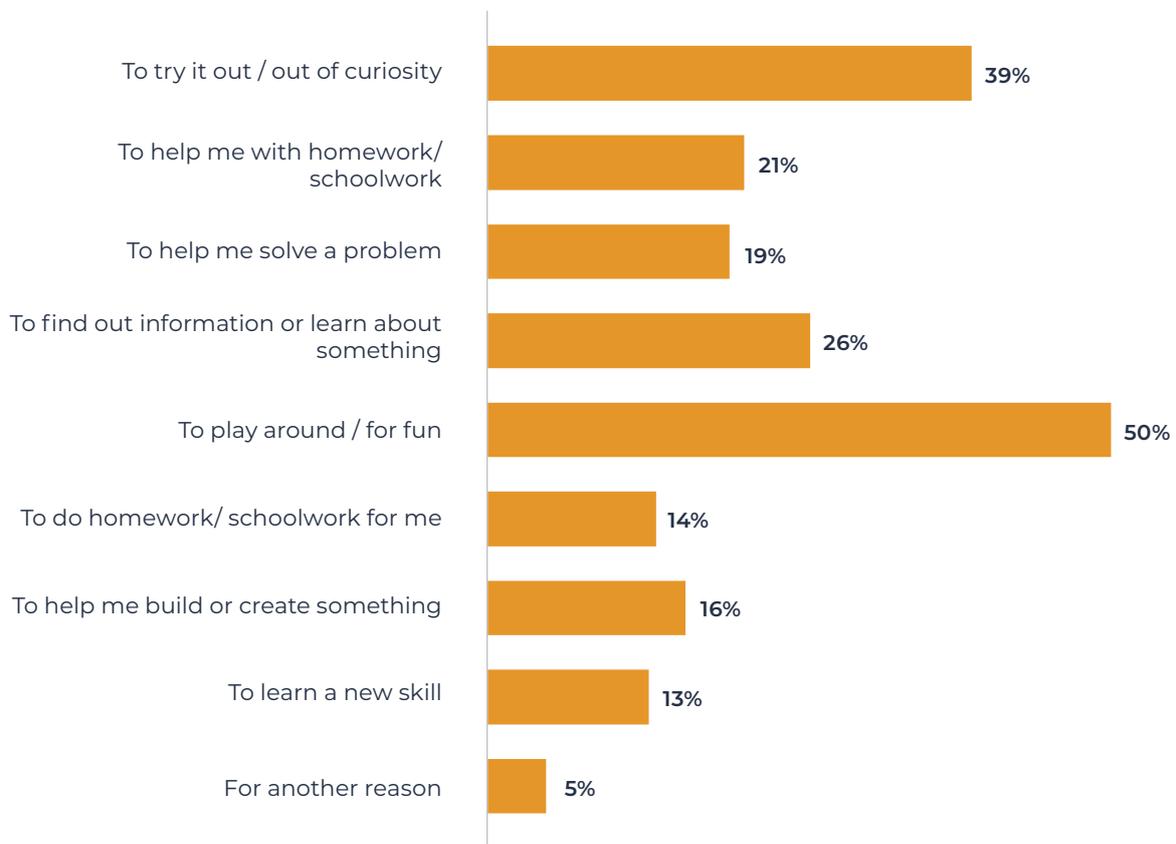| Reason	Percentage
To try it out / out of curiosity	39%
To help me with homework/ schoolwork	36%
To help me solve a problem	35%
To find out information or learn about something	34%
To play around / for fun	25%
To do homework/ schoolwork for me	24%
To help me build or create something	18%
To learn a new skill	15%
For another reason	3%

My AI

In April 2023, Snapchat added a new generative AI chatbot called My AI. This chatbot was added to all users' accounts and can only be removed by users who pay for Snapchat Plus. Our survey findings reveal that 23% of children aware of generative AI have used My AI, making it the most widely used generative AI tool alongside ChatGPT. Half of children (50%) have engaged with My AI to play around with it or for fun, while over a third (39%) have engaged with it to try it out or out of curiosity. As this chatbot has been integrated into the popular app, used by 41% of children (a figure which climbs to 57% for 15-17 year olds), it has a certain degree of accessibility as users are already familiar with the app, and have easy access to the chatbot.

What have you used them [generative AI tools] for?
(% of children who have used My AI)

Reason	%
To try it out / out of curiosity	39%
To help me with homework/ schoolwork	21%
To help me solve a problem	19%
To find out information or learn about something	26%
To play around / for fun	50%
To do homework/ schoolwork for me	14%
To help me build or create something	16%
To learn a new skill	13%
For another reason	5%

Parents and children who have engaged with generative AI tools
(% of all parents and children aged 11+)

■ Yes (Parents)   ■ Yes (Children)

	ChatGPT/GPT-4	Gemini by Google	Stable Diffusion	DALL-E	Bing Chat	My AI by SnapChat	Billie chatbot by Instagram	Replika
Yes (Parents)	29%	14%	6%	9%	17%	15%	9%	6%
Yes (Children)	23%	9%	4%	4%	10%	23%	8%	5%
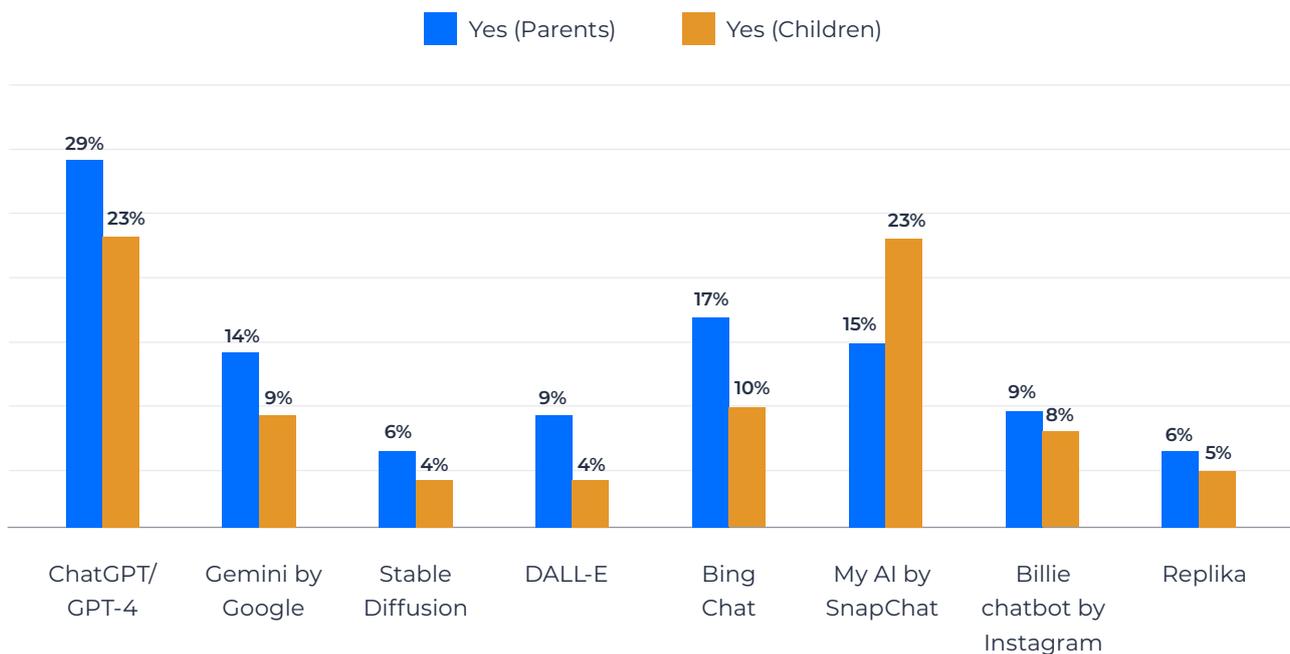
Perception of generative AI tools

Despite the popularity of generative AI tools, there is no clear consensus among children on whether AI is positive or negative. 35% of children express a positive view, considering AI to be beneficial. Children described how they use these tools to help them with their schoolwork:

"It is very helpful when you want something, like when I need help with school work" (Girl, 12)
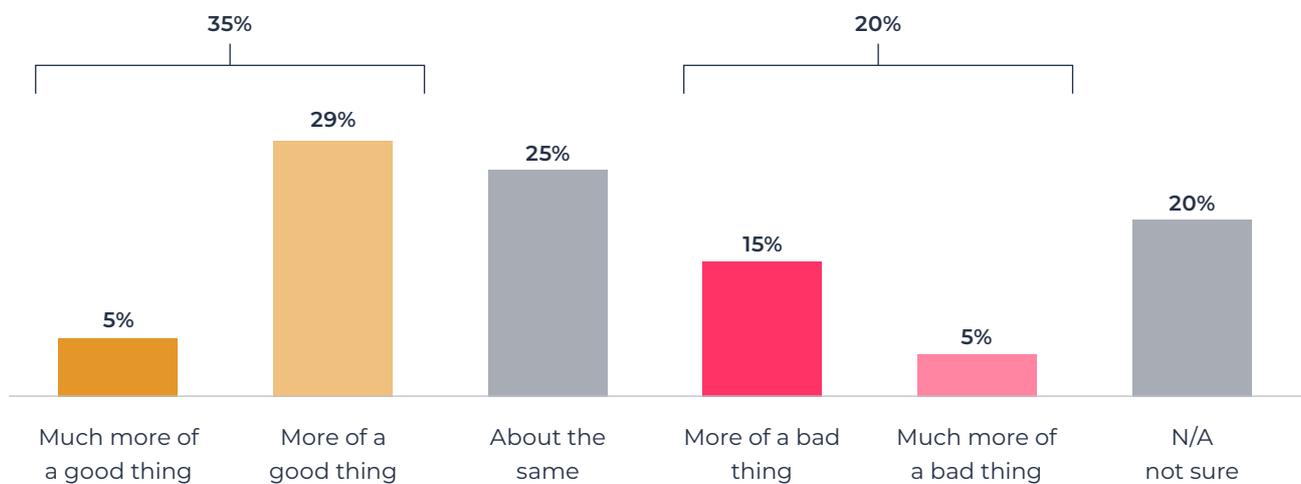
However, 20% of children have a negative view of AI, with a further fifth of children (20%) unsure. One of the primary concerns raised in the free-text responses was around the availability of jobs in the future:

"I am worried there may not be a job for me in 10 years time because they will all be done by robots" (Girl, 13)

Our survey found that the children who actually use generative AI are more likely to think of AI positively. Of the 44% of children who indicated they have engaged with generative AI tools, 62% view AI positively, compared to only 38% of those who had not engaged with generative AI. This suggests that direct experience with generative AI may expose children to the more practical and creative benefits that these tools have to offer, influencing their overall perception.

From what you know and have read about "artificial intelligence", do you think it is more of a good thing or a bad thing, in general?
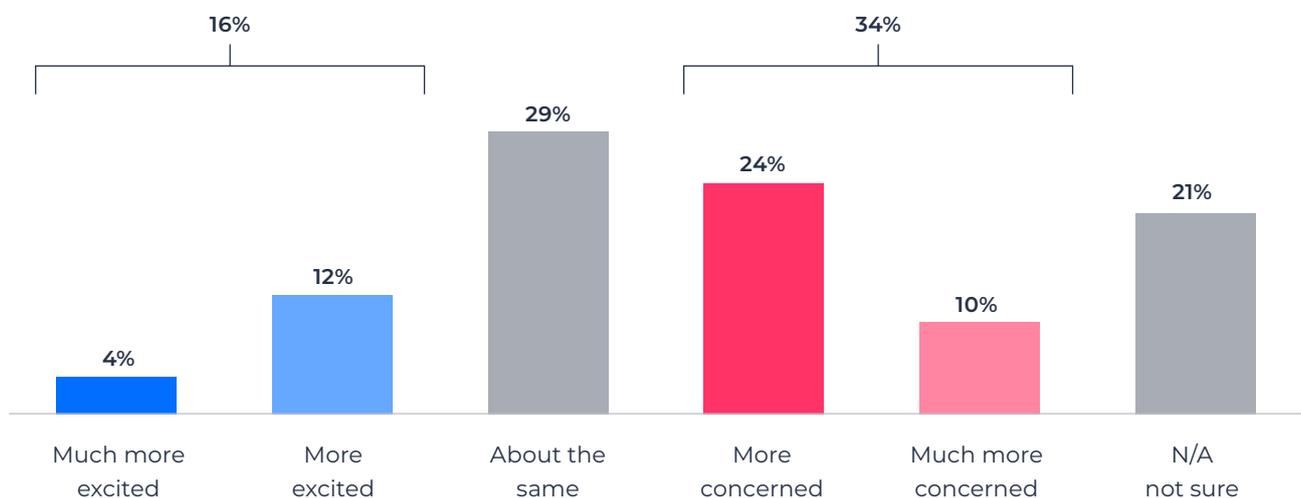*(% of all children aged 11-17)*

	35%			20%		
5%	29%	25%	15%	5%	20%
Much more of a good thing	More of a good thing	About the same	More of a bad thing	Much more of a bad thing	N/A not sure

However, the survey findings also highlight that twice as many parents (34%) report being concerned rather than excited (16%) about the impact of AI on their child's life.

From what you have read and your existing knowledge, are you more excited or more concerned about the potential impact of generative AI tools on your child's life?
(% of all parents)

	16%			34%		
4%	12%	29%	24%	10%	21%
Much more excited	More excited	About the same	More concerned	Much more concerned	N/A not sure

Our free-text questions reveal that of the parents who are concerned, many tend to worry about the impact on their children's ability to learn for themselves, to get jobs in the future, and the wider impact on society:

> *"These tools may result in a loss of jobs and a lack of trust in many types of products, and young people may lose their desire to do, think, or produce for themselves."*
> *(Mum of children aged 6-10 and 14-15)*

In contrast, parents who are excited about generative AI see the technology as an avenue for learning and creativity, and some think that it is good for helping their children with schoolwork:

> *"AI helps my child complete coursework assignments faster, and to a higher standard, than she would probably have done herself"*
> *(Dad of child aged 14-16)*

Interestingly, of those parents that indicated they have used generative AI, 68% are more excited than concerned about the potential impact of these tools on their child's life, this compares to almost a third (32%) of those who have never used generative AI. This suggests that parents who have engaged with these tools themselves may have a better understanding of the technology and the benefits it offers. Their direct interaction with generative AI may have provided them with more insights into the practical application of generative AI in education. On the other hand, parents who haven't used these tools may rely on what they've read in the news or general misconceptions about the technology. Their lack of direct experience with it may contribute to a higher level of apprehension about its impact on their child's life.
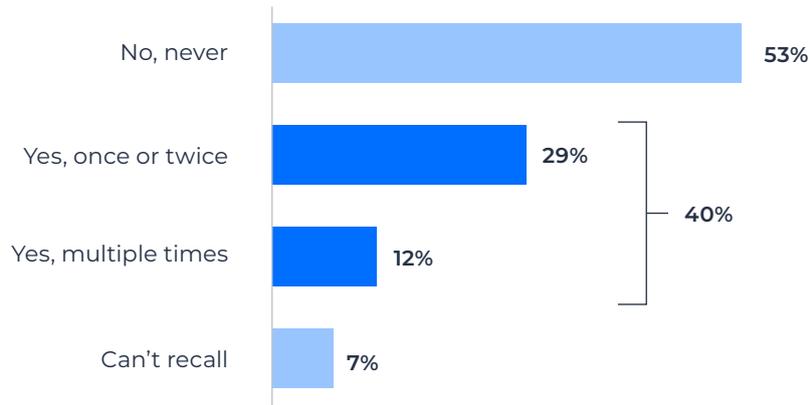
Parent-child dialogue

Our survey findings indicated that there is a gap between parental awareness and children's use of AI tools. Although a third of parents (33%) are aware of their child using AI, including one in five (20%) who say their child has used it occasionally or frequently, 53% of parents who are aware of AI haven't spoken to their children about AI. This significant gap in communication between parents and children is concerning – as with all emerging technologies, it is imperative for parents to engage in open and regular conversations to understand more about what their children are doing online, what apps they are engaging with and what issues they may be encountering.[32] These conversations also create a space for parents to talk to their children about the consequences of what they post online, and how it may affect them later in life. Encouraging this dialogue ensures that children are well equipped to navigate the online world safely and confidently, and fosters a trusting relationship where they feel comfortable seeking guidance from their parents.
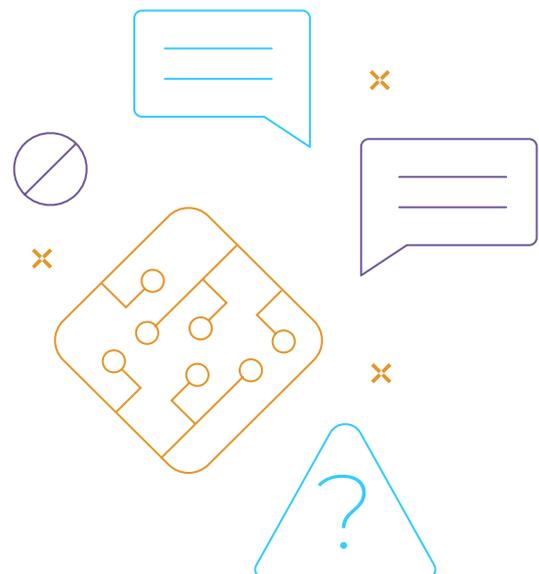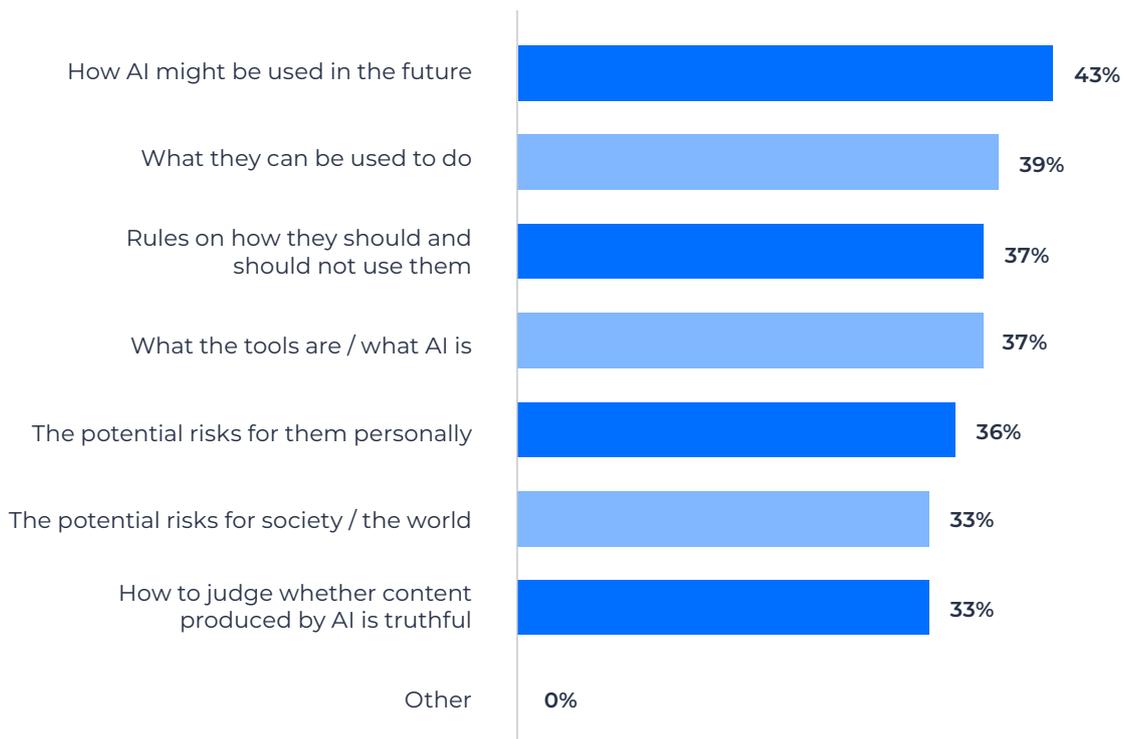
Have you ever spoken to your child/children about these tools or services or about 'generative AI' in general?
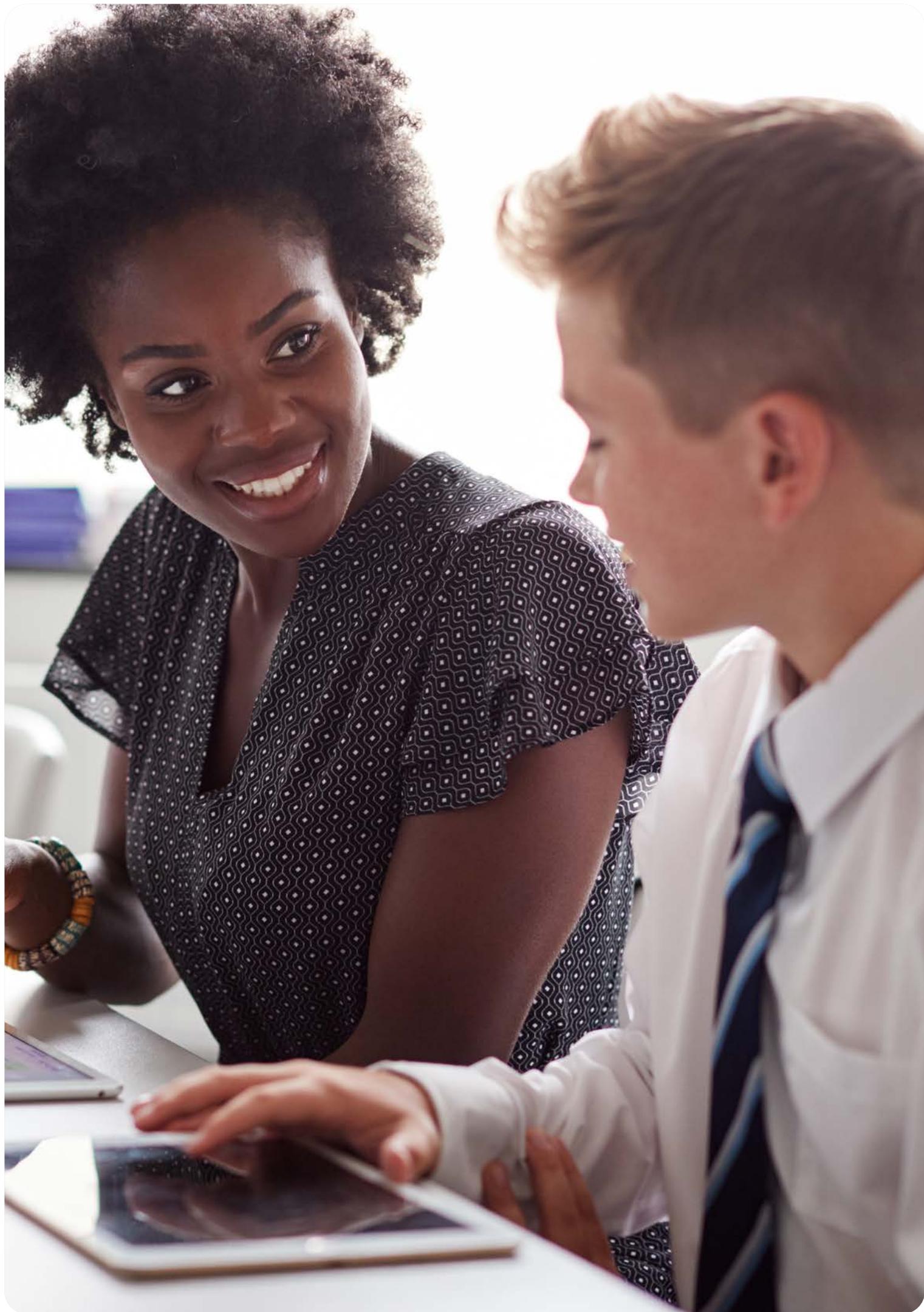
(% of parents aware of AI or AI tools)

No, never	53%
Yes, once or twice	29%
Yes, multiple times	12%
Can't recall	7%

40%

What have you spoken to your child about?
(% of parents who have spoken to their child about AI)

|	
How AI might be used in the future	43%
What they can be used to do	39%
Rules on how they should and should not use them	37%
What the tools are / what AI is	37%
The potential risks for them personally	36%
The potential risks for society / the world	33%
How to judge whether content produced by AI is truthful	33%
Other	0%

Education

Perceived impact on education

When asked to consider the specific role of AI on education, our survey revealed that both parents and children are divided on whether it should have a significant role.

Our findings show that nearly half of parents (46%) and children (49%) are not sure or do not believe that there will be a positive or a negative impact on education. However, children are overall more positive than parents, with 41% believing that AI will be a

good thing, versus 29% of parents who believe the same. Additionally, children may be focused on the immediate benefits offered to them by AI, such as help with schoolwork or other interactive experiences.

This is supported by findings around how children may **already** using generative AI tools to support schoolwork and homework. **Over half of children (54%) who are using generative AI tools, have used them to complete or help with homework or schoolwork; this could mean almost 1 in 4 children are using generative AI as part of their schooling.**

Do you think AI will have a positive or negative impact on your child's education? (Parents)
(% of all parents)
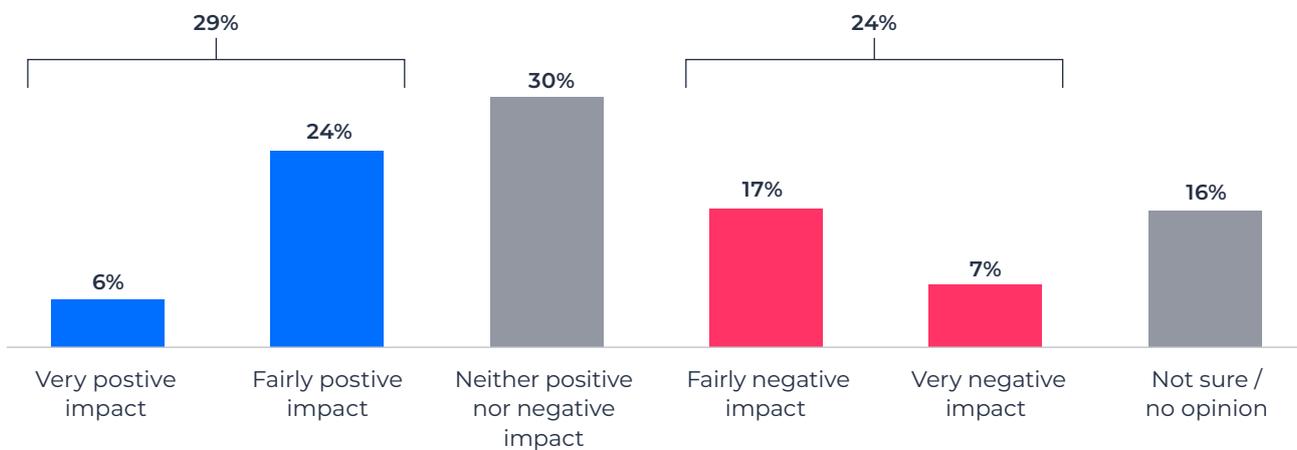
Do you think AI will be more of a good or bad thing in your education? (Children)
(% of all children)
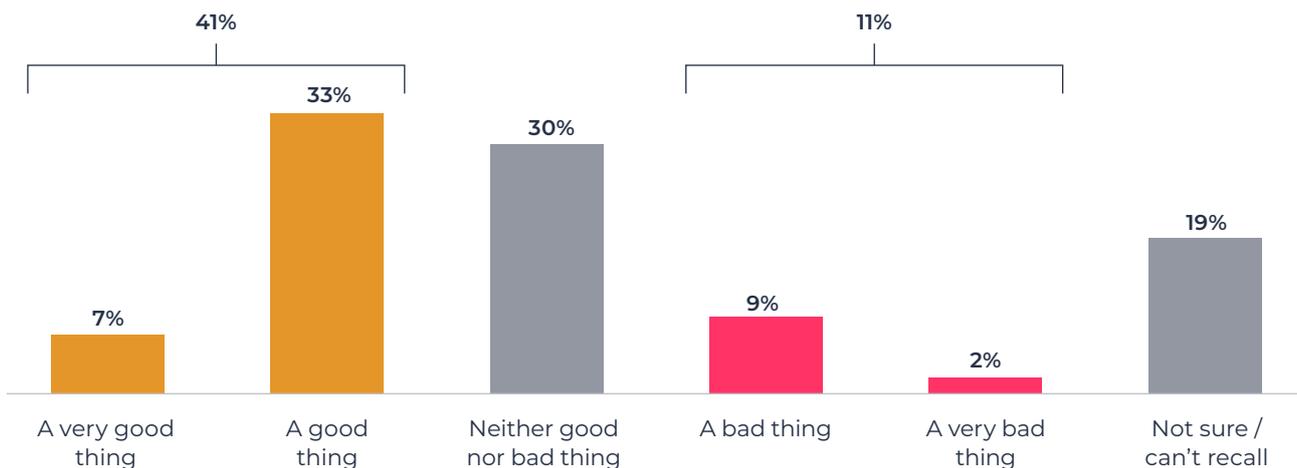
Our findings also reveal that both parents and children are split on whether AI should be banned or embraced in schools. Although just under half (46%) of parents are supportive of AI being used in schools, 33% believe that either schools should only use it in limited circumstances, and 11% believe it should be banned altogether. Similarly, 43% of children are broadly positive about AI being used in schools, however 40% believe that it should either be used in limited circumstances (26%) or banned (14%). These findings indicate that there is a significant divide among both children and parents regarding the integration of AI in education.
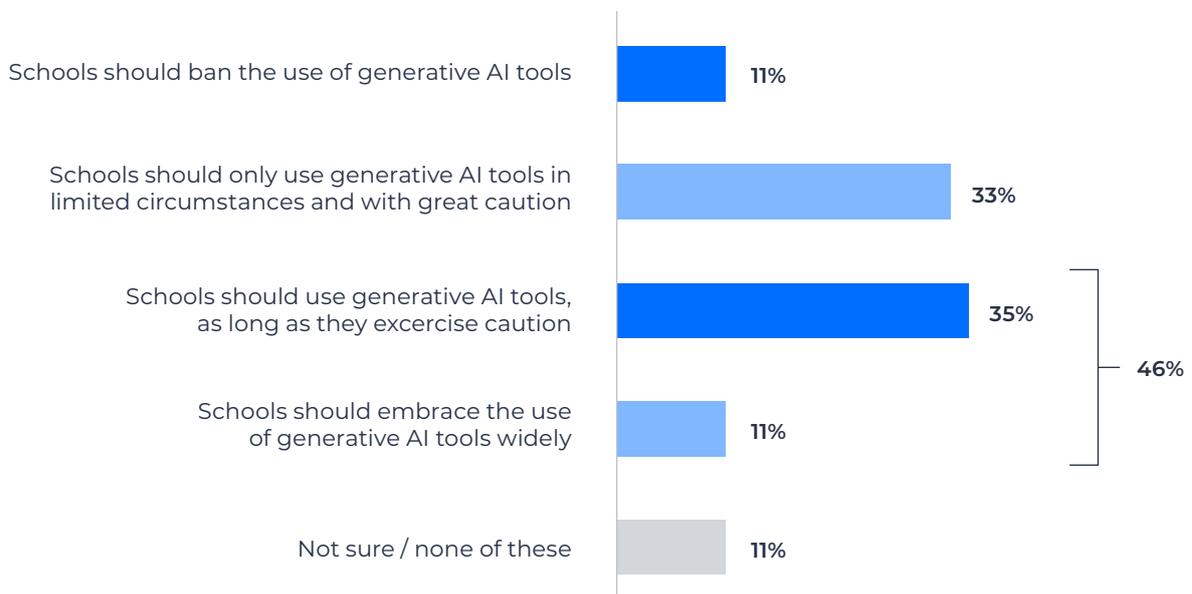
When asked why they felt the way they did, the themes of needing more information of how AI will be used in schools, as well as concerns around losing critical thinking skills emerged:

"I'd probably want more information if it's involving my child and his school work." (Mum of boy aged 15-16)

"I think they could be using them too much for things like homework and school work and lose the ability to work on such assignments themselves." (Mum of boy aged 17)

Some people have argued that generative AI tools should be banned from schools entirely to preserve children's learning experience. Others have argued that schools should embrace the opportunities which generative AI tools can provide to improve children's learning experience. Which of the following statements comes closest to your view?
(% of all parents with children 8+)

Schools should ban the use of generative AI tools	11%
Schools should only use generative AI tools in limited circumstances and with great caution	33%
Schools should use generative AI tools, as long as they excercise caution	35%
Schools should embrace the use of generative AI tools widely	11%
Not sure / none of these	11%

46%

*Some people say artificial intelligence (AI) tools should be banned from schools to prevent cheating. Others say AI tools can improve pupils' learning experiences and allow teachers to spend more time with pupils. Which of the following statements comes closest to what you think?*
(% of all children)

Statement	%
Schools should ban the use of AI tools	14%
Schools should allow very limited use of AI tools	26%
Schools should allow the use of AI tools with some rules	32%
Schools should use AI tools widely	11%
Not sure / none of these	17%

43% (Schools should allow the use of AI tools with some rules + Schools should use AI tools widely)
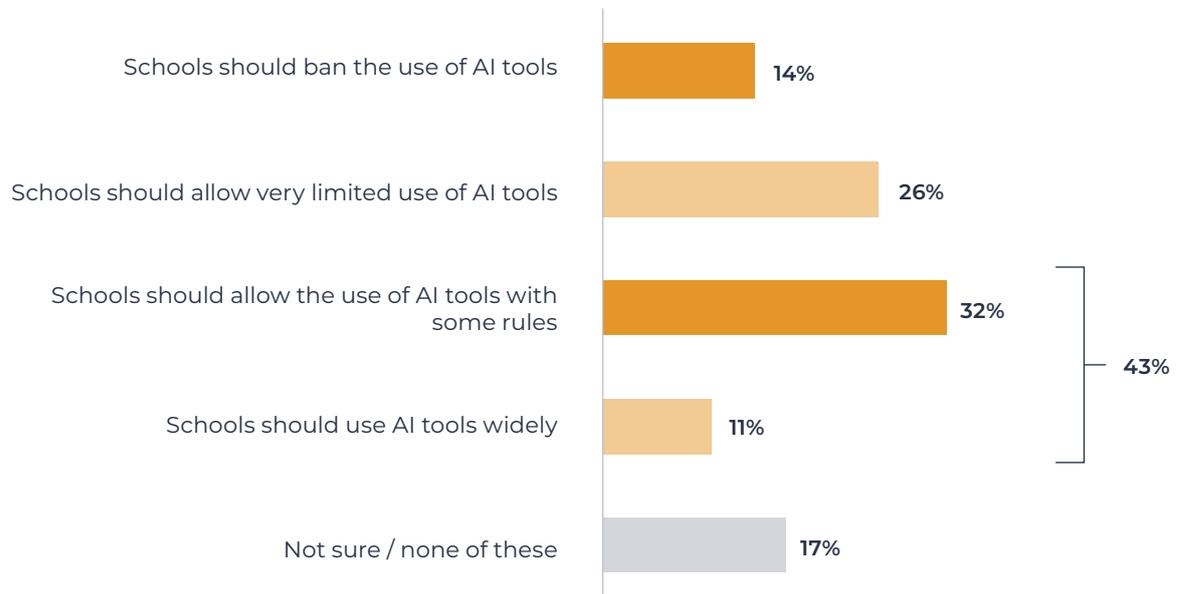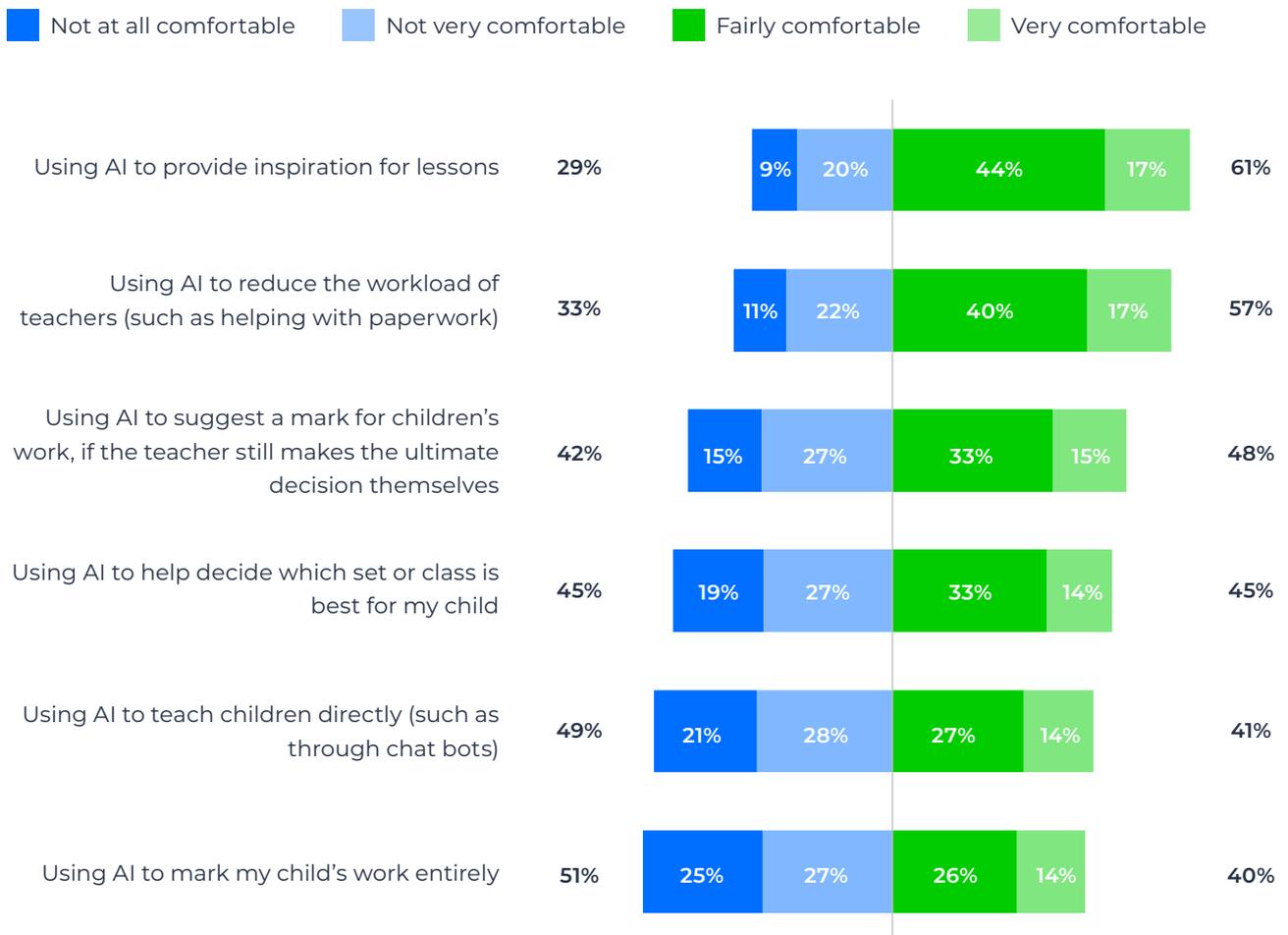
A possible reason for these divided opinions could be varying levels of understanding of how AI will be used in an educational setting, as well as the lack of clarity on its benefits and risks. Although some parents and children may be more optimistic about the positive impacts of AI on learning, others may have concerns about its implications for data privacy or the quality of education, as well as concerns around how teachers are using this technology.
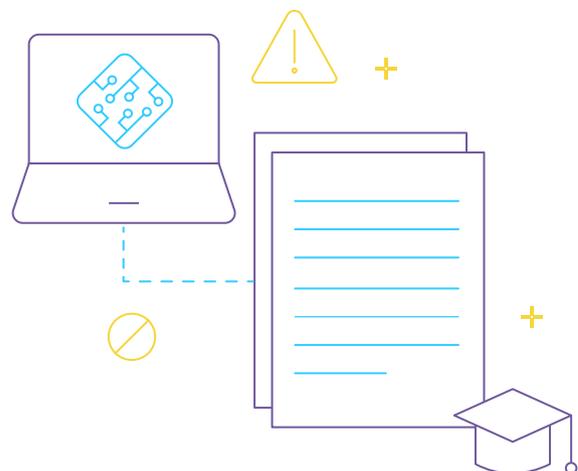
Use of AI in schools

Our survey findings demonstrate that although only 29% of parents would not be comfortable with teachers using AI to provide inspiration for lessons, over half of parents (51%) would not be comfortable with teachers using AI to mark their children's work entirely. However, again, many of these findings demonstrate that parents are split on how they would want AI to be integrated into the classroom. For example, 45% of parents would be comfortable for schools to use AI to help decide which set or class is best for their child, but 45% of parents would not be comfortable with this.
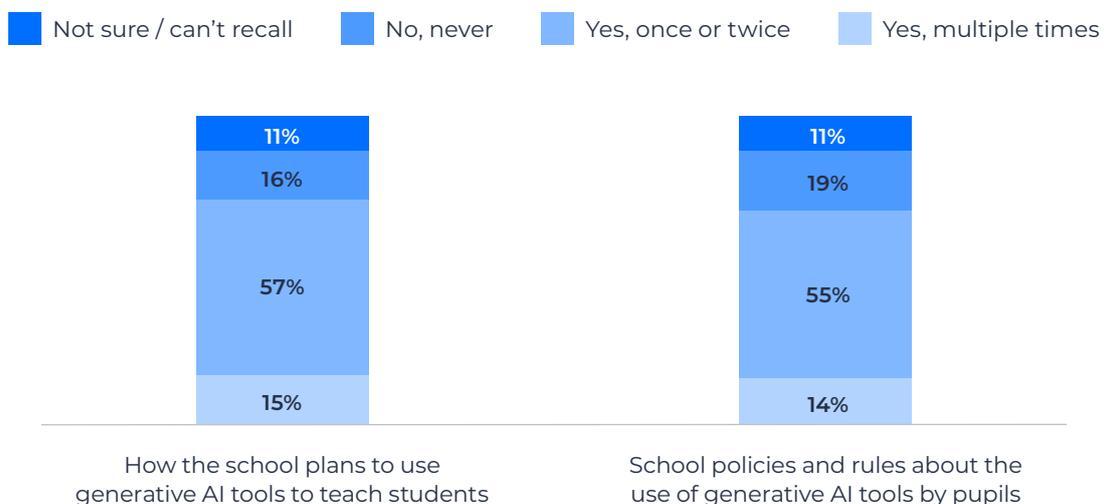
From what you have read and your existing knowledge, how comfortable would you feel about your child/children's school or teachers doing the following, if at all?
(% of all parents with children 8+)

■ Not at all comfortable ■ Not very comfortable ■ Fairly comfortable ■ Very comfortable

Using AI to provide inspiration for lessons	29%	9%	20%	44%	17%	61%
Using AI to reduce the workload of teachers (such as helping with paperwork)	33%	11%	22%	40%	17%	57%
Using AI to suggest a mark for children's work, if the teacher still makes the ultimate decision themselves	42%	15%	27%	33%	15%	48%
Using AI to help decide which set or class is best for my child	45%	19%	27%	33%	14%	45%
Using AI to teach children directly (such as through chat bots)	49%	21%	28%	27%	14%	41%
Using AI to mark my child's work entirely	51%	25%	27%	26%	14%	40%

Schools' communication

Our survey findings reveal that 57% of parents have not been informed about how their child's school plans to use generative AI tools to teach students. Furthermore, over half of parents (55%) have not been informed about school policies and rules about the use of generative AI tools by students. It is unclear from this survey alone whether this lack of communication is because schools do not have specific policies around generative AI and/or are not intending to use it, or if they do have those policies and/or plans but have not communicated them to parents. It is likely to be a mix of the two.

Has your child/children's school ever communicated to you as a parent about the following?
(% of all parents with children 8+)

Legend: Not sure / can't recall   No, never   Yes, once or twice   Yes, multiple times

How the school plans to use generative AI tools to teach students:
- 11% (Not sure / can't recall)
- 16% (No, never)
- 57% (Yes, once or twice)
- 15% (Yes, multiple times)

School policies and rules about the use of generative AI tools by pupils:
- 11% (Not sure / can't recall)
- 19% (No, never)
- 55% (Yes, once or twice)
- 14% (Yes, multiple times)

Interestingly, we find that parents with children in schools that have been proactive in sharing their plans to use generative AI are more positive about the impact of generative AI on their child's life. In schools that have communicated multiple times about the use of these tools as part of learning, over a quarter of parents (27%) are excited about their potential impact, compared with only 12% of parents being excited in schools that have not communicated their plans around the use of generative AI. This suggests that clear communication plays an important role in shaping parental attitudes toward the use of generative AI in their children's education.

Our survey found that a third (34%) of children reported that their school or teachers have not broached the topic of using AI, and a further 20% can't remember if they have discussed it.

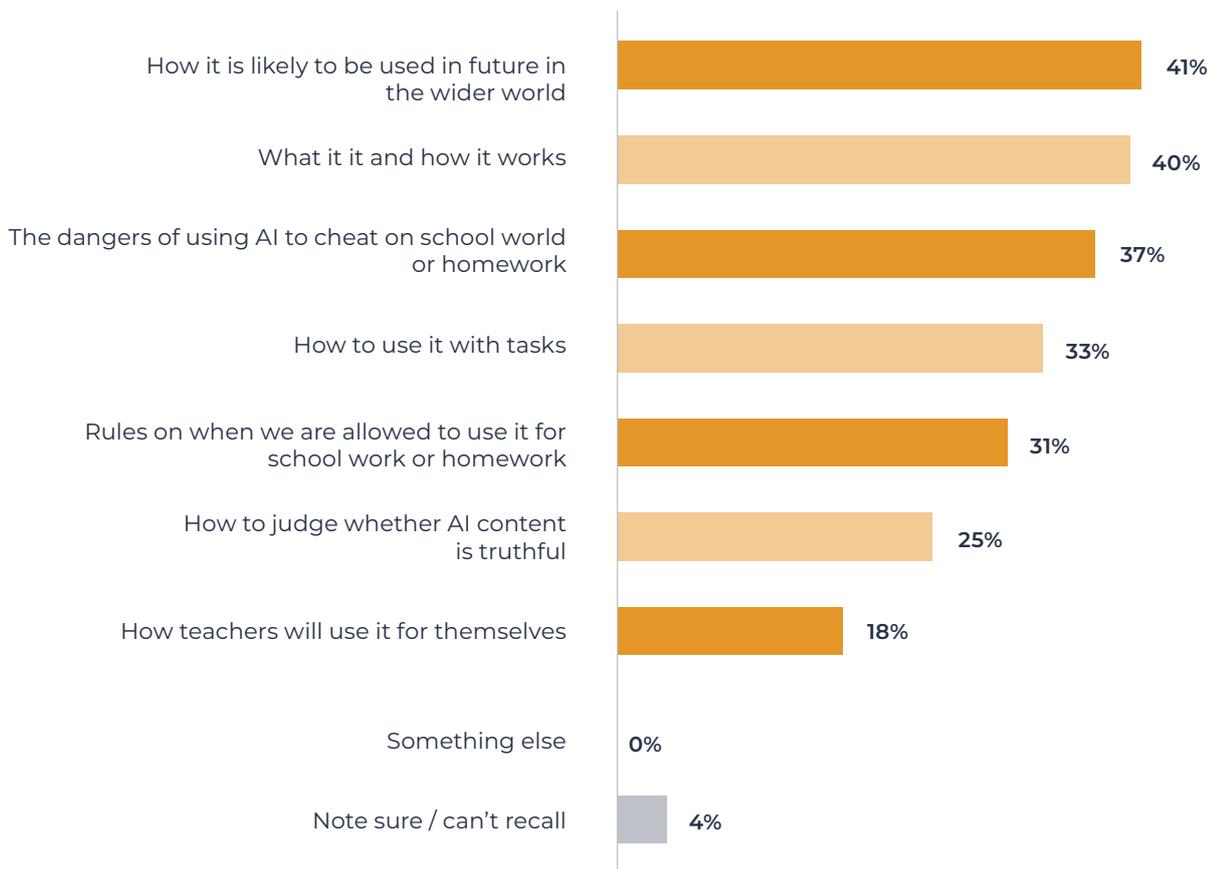## Has your school or teacher ever spoke to you about using AI?
(% of children whose school has spoken to them about using AI)

20%	34%	34%	12%

- ■ Not sure / can't recall
- ■ No, never
- ■ Yes, once or twice
- ■ Yes, multiple times
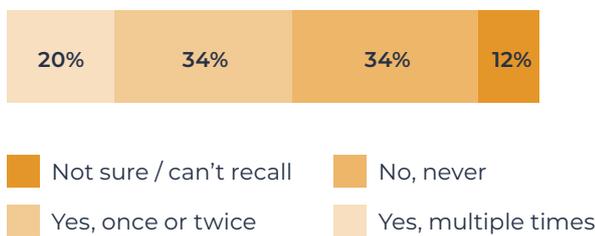
Of the children whose school has spoken to them about using AI (46%), the most common topics that have been discussed are how AI is likely to impact their future careers (41%), what it is and how it works (40%). Some important topics are not frequently discussed, including how to judge whether AI content is truthful (25%) and whether (or how) it can be used for schoolwork and homework (31%). This suggests that only 14% of all children have had teachers speak to them about how AI can be used for schoolwork or homework.

What has your school spoken to you about?
(% of children whose school has spoken to them about using AI)

How it is likely to be used in future in the wider world	41%
What it it and how it works	40%
The dangers of using AI to cheat on school world or homework	37%
How to use it with tasks	33%
Rules on when we are allowed to use it for school work or homework	31%
How to judge whether AI content is truthful	25%
How teachers will use it for themselves	18%
Something else	0%
Note sure / can't recall	4%

When delving deeper into the impact of the frequency with which schools address the topic of AI with their students, a pattern emerges. In schools where teachers discuss AI frequently with their students, our survey finds that students have a more positive outlook regarding the impact of AI on their education. 71% of children perceive AI as a positive thing for their education in schools where teachers have engaged in multiple discussions about it. In contrast, only 29% of students share the sentiment that AI is advantageous for their education in schools where teachers have never broached the subject.

Summary

Our survey delves into the dynamics surrounding families' awareness and usage of generative AI tools. We find that a significant number of children, particularly in the 13-14 age group, actively engage with tools like ChatGPT and My AI, often seeking assistance with schoolwork. Many vulnerable children are also leveraging AI for help with schoolwork, which may suggest that they are using it to overcome certain learning barriers or that they are struggling in school and not getting the support that they need. Supporting vulnerable children is a key consideration, given that wider research from Internet Matters consistently demonstrates that vulnerable children are at a greater risk of being exposed to online harms. Our research also highlights the fact that it can often be difficult for teachers to respond to the varied needs of vulnerable children, who often need a tailored approach.[34]

Parents also demonstrate a high awareness of AI concepts, with many of them using generative AI tools, such as ChatGPT and Bing Chat. While children's perceptions of generative AI tools vary, parents express more concerns than excitement about generative AI's impact on their child's life, citing worries about education and job opportunities. There is a notable gap in communication between parents and children regarding AI usage, emphasising the need for open communication about this emerging technology. These conversations are crucial to create a safe space for children to discuss any issues they may be encountering online, and also for parents to talk to their children about the repercussions of posting or engaging with harmful material.

We find that opinions on AI's role in education are divided among parents and children, with children generally more positive, possibly due to greater immersion in digital technologies. Our survey also found that the comfort level of parents with AI use in schools varies, reflecting a lack of consensus on integration into the curriculum. Clear communication from schools positively influences parental attitudes, and frequent discussions on AI correlate with a more positive perception among students regarding its impact on education. However, it is concerning that important topics are not frequently addressed when speaking to students about AI, such as how to judge whether AI content is truthful. Wider work from Internet Matters underscores the critical role that teachers play in both supporting children online, and reaching out to parents, who are the first line of support when it comes to keeping children safe.[35]
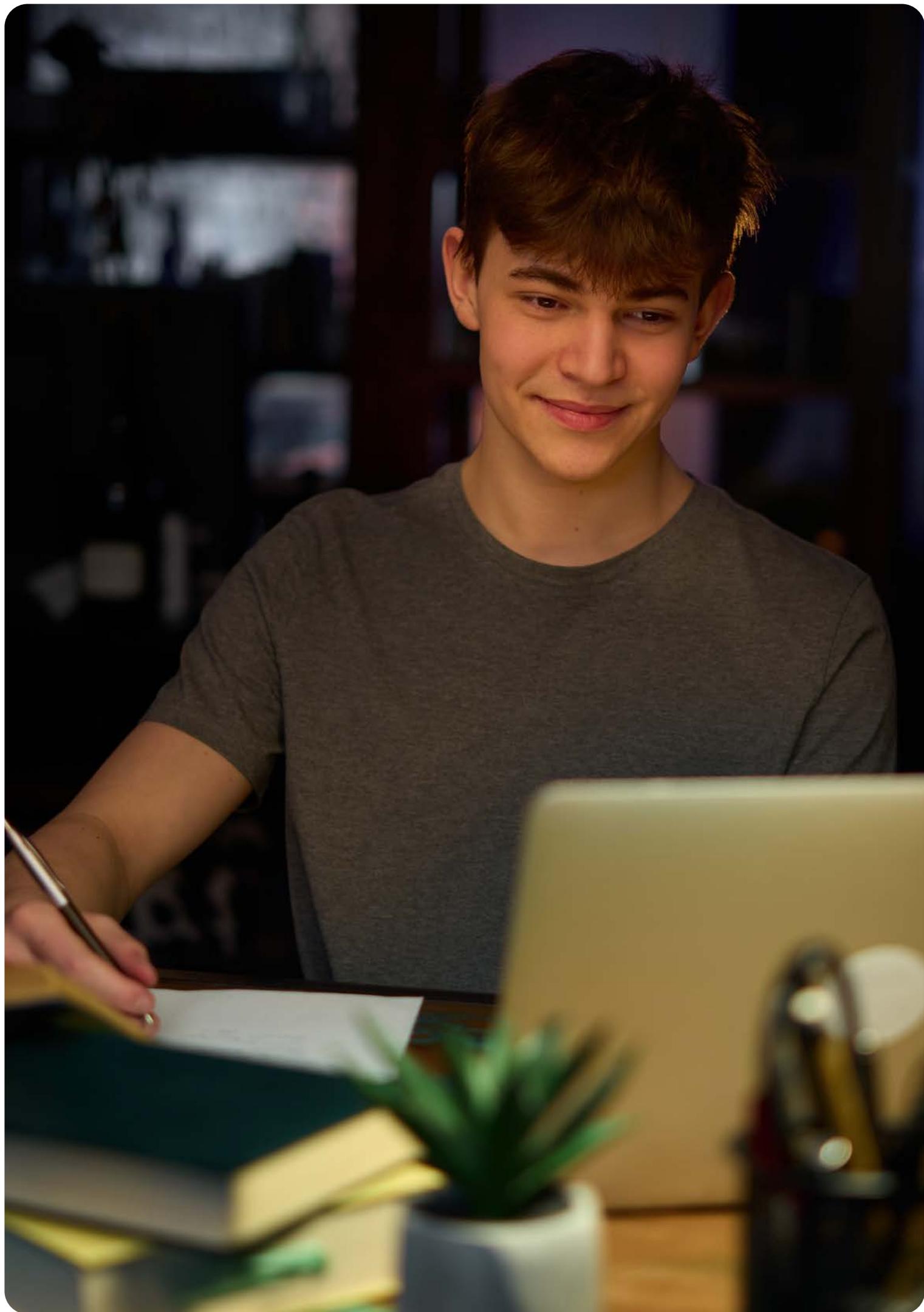
Conclusions and next steps

There is no question that generative AI is here to stay: tools like OpenAI's ChatGPT and Snap's My AI are reshaping the way children and parents interact with online platforms. Now, with just a few prompts, an entire essay can be crafted, or an image can be generated, fundamentally changing the way we produce and share content. However, our survey shows that both parents and children have remaining questions about the impact of AI on their daily lives, education and futures.

More long-term research is needed – particularly with children and families – to understand how AI technologies are affecting them in the here and now, as well as their expectations and concerns for the future.

Yet it's clear that schools need more support, guidance and training in the *immediate* term.[36] For example, our survey points to how few parents (just 28%) have received communication from their child's school about acceptable use of AI in the classroom and at home.

The Government's recent actions in relation to AI policy and regulation in schools are welcome.[37] We see these outputs – such as the publication and recent update to a policy position paper on generative AI[38] – as an indication of how seriously the Government views the transformative impacts that generative AI may bring to education in the coming years.

However, we think that this approach should be built upon and broadened as an urgent priority. We are concerned that the Government are considering a narrow range of questions – particularly focussed on specific use cases of AI technologies to promote efficiencies and reduce school workload, such as drafting lesson plans or marking exam papers, at a time of concern about workload burdens on teachers.[39]

Wider and more fundamental questions about the future of education, and the kind of relationship that children should foster with AI tools remain unanswered. And while we note that the Department for Education (DfE) have consulted with teachers, school leaders, academics and the tech sector, the views and experiences of young people and parents remain largely unheard.[40]

With this report we aim to start a conversation from the perspectives of children and parents. We don't claim to have the answer to all the questions – there are still many unknowns and technology continues to develop at a rapid pace. But we hope that it provides a helpful starting point and reminder of the importance of incorporating the voice of families within each stage of policy development.

Below we set out a series of suggestions for **government, schools, industry** and **parents** to limit the risks of AI to children while promoting the benefits to learning.

National guidance

Many complex questions around the future of education in an AI-driven world remain unanswered, such as: tackling the digital divide, maintaining the integrity of assessments, and promoting all the possible benefits to creativity and learning – all the while ensuring that AI tools do not undermine core reading, writing and reasoning skills.

But while consensus across these issues remains far off, we believe that **the Government should provide more advice and support in the immediate term to schools** to support teachers, parents and children to benefit safety from the worthwhile applications of AI tools.

We encourage the Department to think more widely about the potential benefits and limitations (i.e. beyond specific applications to reduce teacher workload). This could be achieved through additions to existing guidance, or through the publication of standalone statutory guidance. We note that this is a fast-paced area of change, and so – wherever

it is drafted – the Department should ensure that guidance around generative AI is live and iterative, and make sure to communicate updates frequently.

Given the wide and far-reaching considerations of generative AI for the next generation, it is important for the Department to consult with children and parents on the new guidance, as well as with schools, to ensure that it speaks to the concerns and needs of families.

Based on our survey findings, we suggest that DfE guidance should include (but not be limited to):

- **Clear and ongoing communication with children and parents about generative AI.** This should include accessible information about what generative AI is, the possible benefits and risks, and how parents can support children with these in mind. Schools should ensure that rules around using generative AI to support learning are clear to both children and parents – including expectations about appropriate use in the classroom and at home.

- **Information about integrating safe and responsible AI use in the curriculum.** Online safety/skills and media literacy teaching is currently spread across various areas of the school curriculum – including through RSHE, Computing, Media Studies, Citizenship and – to an extent – English and History. Guidance should advise schools on how to educate children about the implications of generative AI across these subjects (for example teaching about critical thinking and recognising false information) and how to foster responsible use of AI technologies.

- **Ensuring equitable access.** Not all families will have equal access to AI technologies, therefore guidance should advise schools on achieving full digital inclusion where AI is used to support learning.

- **Supporting staff with decisions about use of generative AI.** Guidance should set clear boundaries around appropriate uses of AI in the classroom, marking exam papers, and other uses. It should set out key issues/limitations

of generative AI (such as tendency to bias and potential for false or misleading information). Guidance should be given to schools on how to prepare and train staff on using AI technologies safely and securely, including information on bias, misleading information and data security. These guidelines should be frequently updated with the pace of change of generative AI technologies.

Advice for parents

Children's exposure to and use of generative AI continues to grow with integration across social media and search platforms, as well as standalone AI apps and tools. As with other aspects of online safety and media literacy, for most children, parents are the key source for support, advice and for modelling positive behaviour. Our primary messages to parents and carers remain the same as other areas of online safety:

- Having conversations with your children about how they are using AI is key. Our findings show that over half of parents haven't spoken to their children about AI, and these discussions can be a valuable way to bridge any gaps in knowledge or understanding and to foster a safer online environment in the home.

- Exploring AI tools with your child is a great way to strengthen your understanding of how they're using AI, and how these tools work. This gives you a chance to encourage your child to think critically about the information and content they encounter when using these tools.

- Tap into resources provided by organisations like Internet Matters to boost your understanding of the latest technologies your children might be using. Our resources include:

  - A parent's guide to using AI with kids

  - Tech & Kids

  - Fake news and misinformation facts & advice hub

  - Parental Controls

  - Get kids tech set up safe

Digital inclusion

Our research consistently shows that children on free school meals (a proxy of those living in financially disadvantaged households) have less access to digital devices and data than their peers. We support the Digital Poverty Alliance's National Delivery Plan, which highlights the importance of ensuring full digital access for those in need, as well as improving the standards of accessibility and inclusiveness across digital products and services.

Generative AI is already transforming many aspects of children's digital lives, how they participate online, communicate and learn. Rapid advances in technology make addressing digital access all the more pressing – as some of the youngest generation begin to benefit from the positives of artificial intelligence in day-to-day life and learning.

The DfE should take particular care to prioritise resources and training to schools in the areas of highest needs to ensure equity of access to technology and high-quality teaching about AI tools.

Access efforts must be accompanied by a strong education in media literacy – to ensure that all children are able to engage with technologies safely and confidently. We discuss the challenges around effective media literacy education in more detail below.

The role of industry

Technology companies shape the future of digital interactions, especially for children. As this report shows, many children are engaging with AI tools out of curiosity, with 13–14-year-olds being the most frequent users. Social media platforms are often the first gateway for children to engage with generative AI, through tools such as Snap's My AI and Meta's Billie.

This underscores the importance of safety by design, which is something that all platforms should consider when creating tools accessible by children.

Media literacy

We know that the way many schools currently teach media literacy is inconsistent and – to some extent – ineffective. Our survey shows that this extends to issues around AI – for example just 25% of children have had discussions with their teacher about how AI can be used to manipulate the truth.

There are some fundamental questions about how media literacy teaching is delivered in schools, both in the design of the curriculum (online safety teaching is currently spread across RSHE, Computing and non-subject interventions) and the lack of time that many schools have to engage with pupils and to train and prepare staff.

We will explore these issues in a forthcoming vision paper on the future of media literacy education, to be published in the coming months.
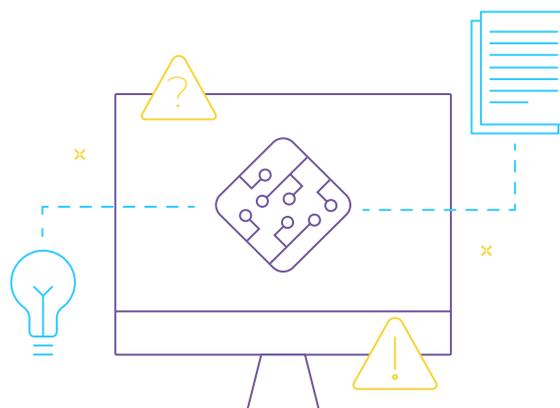
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12. Department for Education, November 2023, 'Generative AI in education. Call for Evidence: summary of responses'. Link.

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37. Including the publication of a policy position paper (link), a review on the role of generative AI in education (link) and a holding hackathon for teachers and school leaders (link). See context section (p.X) for full list.

38. Department for Education, published in May 2023 and updated October 2023, 'Generative artificial intelligence (AI) in education'. Link.

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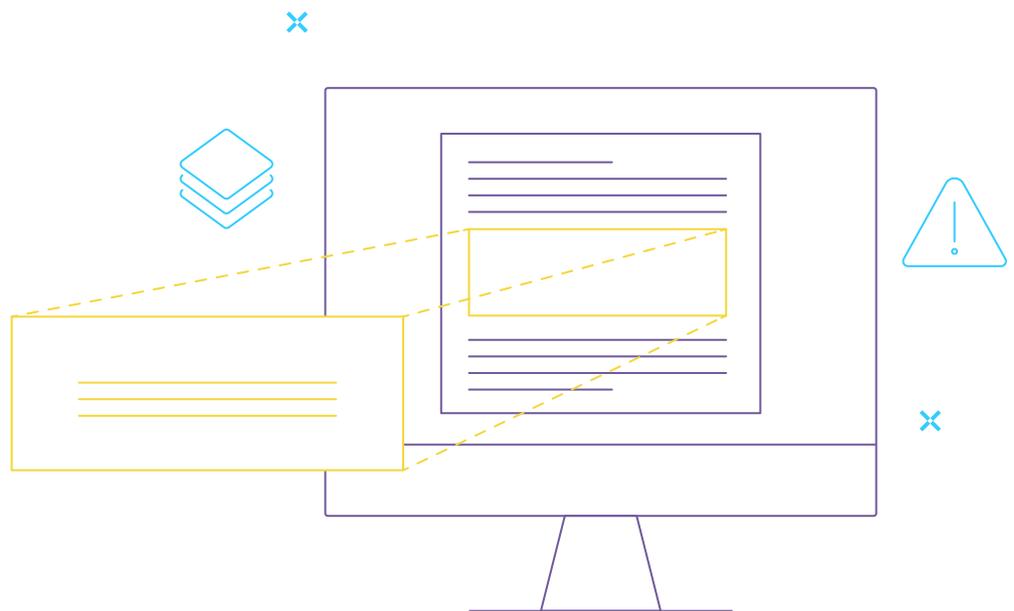
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