Tech Industry | October 2024

Technology:
An Industry Snapshot

Technology is always evolving. It's essential that we stay on top of new developments to maximize potential benefits and minimize risks. This month, we are using data from a recent Harris Poll survey and QuestBrand to examine two key topics in the technology space - artificial intelligence (AI) and data security.

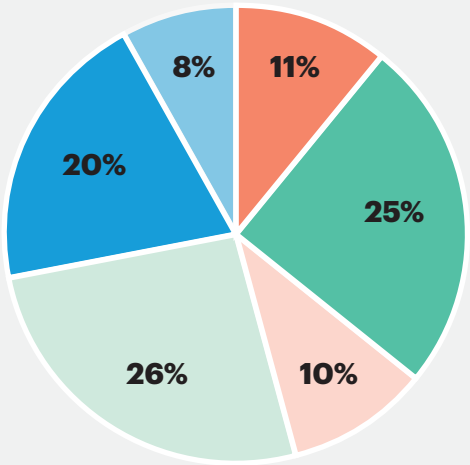
The snapshot takes a deep dive into whether children should use generative AI products to complete schoolwork, and how US consumers feel about companies that suffer a data security event. We close with an over-index report, listing five brands that over-index with Trend Setters and Early Adopters.

Generative AI In The Classroom: Should School-Aged Children Be Using This Technology?

Over the past few years, social media has been under fire for the harm it can inflict on young users. With the rise of generative AI (e.g., ChatGPT, Midjourney), parents are trying to quickly determine whether this technology could be just as harmful. Unlike social media, which is primarily used recreationally, generative AI is entering the classroom and being used to complete schoolwork.

Do parents want their children to use AI for schoolwork? **A plurality** (38%) **of US adults say that children under the age of 18 should not be allowed to use generative AI programs in school**. Americans who think AI-use should be permitted in schools more often favor granting access to older children – **high school** (27%), **middle school** (16%), **elementary school** (11%), **kindergarten or earlier** (8%).

Is it worth bringing AI into schools? **Only a third** (36%) of US adults think that **the use of generative AI tools for schoolwork** (e.g., in class, homework) **will have a positive impact on children's learning experience** (grades K-12). **Almost half** (46%) **think it will have a negative impact**.



What **type of impact** will the use of **generative AI tools for schoolwork** have on **children's learning experience?**

- Very positive
- Somewhat positive
- No impact
- Somewhat negative
- Very negative
- Not at all sure

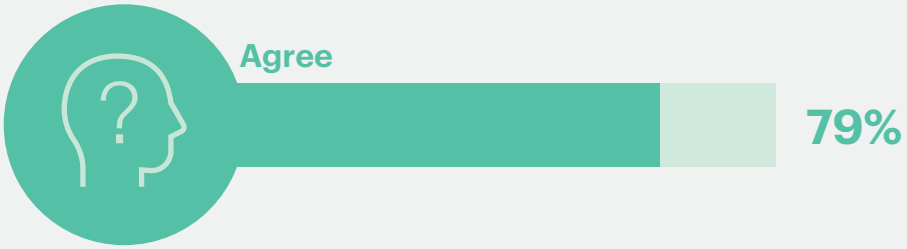
Base: US adults, n=1,053. QS4Q5: What type of impact do you think the use generative AI tools for schoolwork (e.g., in class, homework) will have on children's learning experience (grades K-12)?

Despite parents' hesitation, **a significant percentage of parents with children under the age of 18 report that their child has *already used* generative AI tools for learning purposes** (e.g., in school, to complete homework or other projects outside of class time). Reported generative AI use largely corresponds with students' ages, with **older students more frequently having used AI for schoolwork than younger children**: ages 13-17 (67%), 10-12 (57%), 6-9 (47%), 0-5 (47%).

The majority (79%) of US adults agree that **children should only be allowed to use generative AI tools with adult supervision**. But, what are the risks? Repeated use could create an over-dependence on this technology and decrease students' critical thinking skills. Generative AI programs also increase the ease of cheating. With little effort, students can use the technology to write an essay or answer homework questions. **Eight-in-10** (80%) **US adults agree that using generative AI tools to complete schoolwork without permission from an instructor should be considered cheating**. But it may not always be obvious if generative AI programs assisted a student with their work.

Another big issue - factual accuracy. While misinformation is confusing for users of all ages, recognizing misinformation can be even more difficult for children who are still learning. **More than three-quarters** (79%) **of US adults agree that children are more likely than adults to struggle to identify misinformation** (e.g., fake, misleading) created using generative AI tools.

Children are more likely than adults to **struggle to identify misinformation** created using **generative AI tools**.

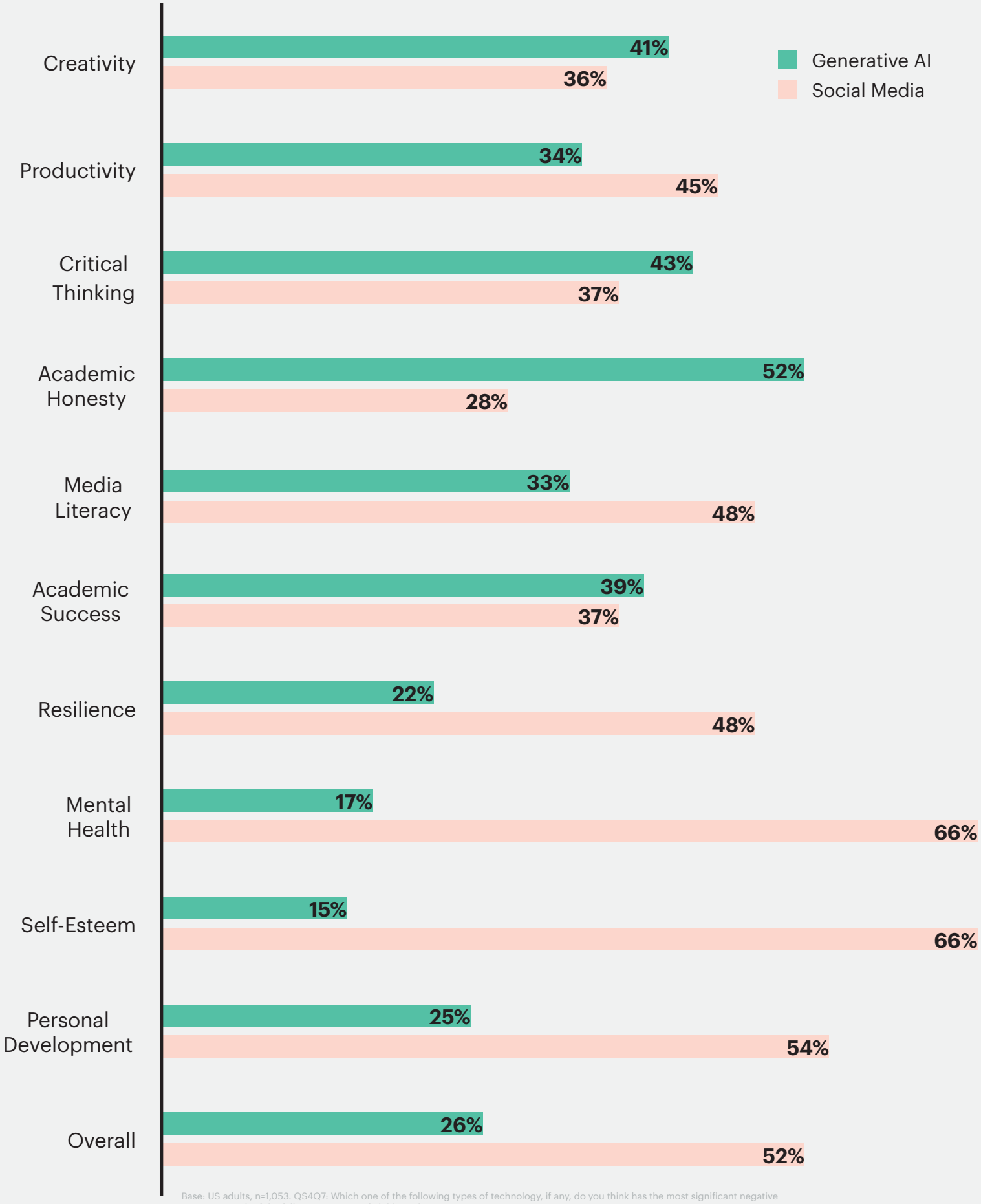


Base: US adults, n=1,114. QS4Q4: How much do you agree or disagree with each of the following statements about the use of generative AI tools by children under the age of 18 (grades K-12)? Children are more likely than adults to struggle to identify misinformation (e.g., fake, misleading) created using generative AI tools.

With all the noted risks, children must be taught responsible use if this technology is to become part of their daily lives. **The majority of US adults** (77%) **agree that schools should teach children how to use generative AI tools responsibly** (e.g., ethical use, how to identify misinformation). Americans think that the school administration (25%), parents (21%), and teachers (16%) should be primarily responsible for managing the use of generative AI in schools. Very few (7%) think that the generative AI companies who created the technology should hold this responsibility.

US adults remain skeptical on the merits of letting school-aged children use generative AI. **More than half** (55%) ***disagree* that children who use generative AI tools to complete schoolwork will be more prepared for life after school compared to children who do not**. Regardless of personal sentiments, it's clear that children must be protected from this technology's potential harms. While it may be too late for social media, there is still time to employ safe use standards for young users of generative AI.

Which **type of technology**, if any, do you think has the **most significant negative impact** on each aspect of **children's lives**?



Base: US adults, n=1,053. QS4Q7: Which one of the following types of technology, if any, do you think has the most significant negative impact on each of the following aspects of children's lives?

How Do Consumers Want Companies To Respond In The Event Of A Data Breach?

According to the 2023 Annual Data Breach Report, **there were 3,205 data compromises in 2023, with 353,027,892 victims**. Compromises most often occurred within the healthcare (809) and financial services (744) industries. However, the top two data breaches by victim count were within the tech space: T-Mobile (37,000,000) and Xfinity (35,879,455).

US adults most often think that **the group(s) collecting** (32%), or **storing** (31%) **consumers' personal data are primarily responsible for protecting their information**. Perhaps because of the high number of data breaches each year, **less than four-in-10** (39%) **US adults trust that businesses are responsible with handling** (e.g., storage, sharing) **their personal information**.

"I have a **worse opinion of an organization** if it is involved in a **data security event**."

"I trust that businesses are **responsible** with handling my **personal information**."

Base: US adults, n=1,053. QS1Q6: QS3Q5: Which of the following statements do you agree with? I have a worse opinion of an organization if it is involved in a data security event. Please select all that apply. I trust that businesses are responsible with handling (e.g., storage, sharing) my personal information.

While consumers lack confidence in businesses' security efforts, they also understand that these unfortunate events are not always preventable. Four-in-10 (38%) US adults agree that **it's impossible to prevent all data security events**. Impossible or not, a company's reputation will still take a hit after a breach. **A third** (28%) **of US adults agree that they have a worse opinion of an organization if it is involved in a data security event**. A similar number (29%) agree that they **avoid working with organizations that have been involved in a known data security event**.

What should companies do if personal information is compromised? After a data security event, **consumers are foremost looking for communication from the affected company**. US adults said that it would be most important for the company to **announce the event to impacted consumers** (20%) **and to announce the event publicly** (16%). Respondents' desire for the responsible party to announce the breach **exceeded their desire for the company to resolve the event** (e.g., address security weaknesses, reobtain compromised data) (13%), improve security measures to prevent another event (10%), compensate impacted consumers (10%), or to issue an apology (5%).

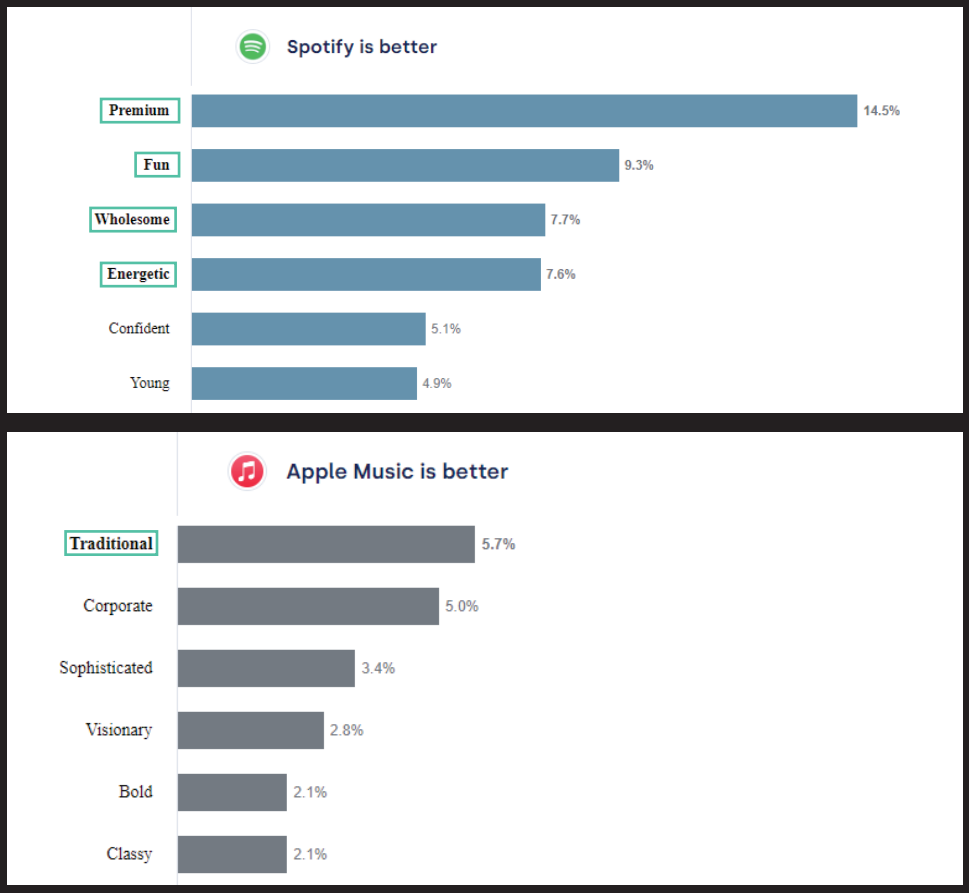
While communicating with customers will not fully prevent reputational damage in the wake of a breach, our survey data makes it clear that prompt communication is expected. Properly handling a security event should help mitigate the extent of the reputational hit.

Spotify vs Apple Music: How Do Young Adults Think About These Two Popular Music Platforms?

Spotify and Apple Music are the two largest music streaming platforms worldwide. The reigning champion, **Spotify, boasts more than 626 million users (246 million subscribers).** Runner-up **Apple Music has an estimated 93 million subscribers.** Unlike Spotify, Apple Music does not offer a free version, users must pay for a subscription.

While users of both platforms range in age, **a significant portion of both Spotify and Apple Music's listening bases fall between the ages of 25-34.** Using data from QuestBrand, we compared how Americans within this high-use age group think about the competing platforms.

Spotify vs Apple Music - What Brand Attributes Do Each Platform Own?



QuestBrand. 1/1/24-10/23/24. Base: US adults familiar with each brand, ages 25-34. Spotify, n=283. Apple Music, n=359.

The two charts above show which attributes over-index with each music platform - using responses from young adults (ages 25-34) who are familiar with the brands. **Young adults more often consider Spotify than Apple Music to be "Premium"** (+14.5), **"Fun"** (+9.3), **"Wholesome"** (+7.7), and **"Energetic"** (+7.6). In contrast, **young adults more often consider Apple Music than Spotify to be "Traditional"** (+5.7).

While both services generally serve the same function, each brand has a unique identity. Consumers' disparate descriptions may be attributed to the differences in the two platforms. Apple Music is known for having a **large music catalogue and high sound quality**. Spotify focuses on curating a **personalized listening experience for each user**. Read our Spotify case study for more about their unique personalization approach. Do you agree with the way these two platforms are described?

Over-Index Report: Brands by Consumer Tech Status

In this month's report, we used brand equity data from QuestBrand to rank brands that over-index with Trend Setters and Early Adopters. This indicates that these consumers value these brands more highly than the general population of US adults. Brand equity data was taken from January - June 2024.

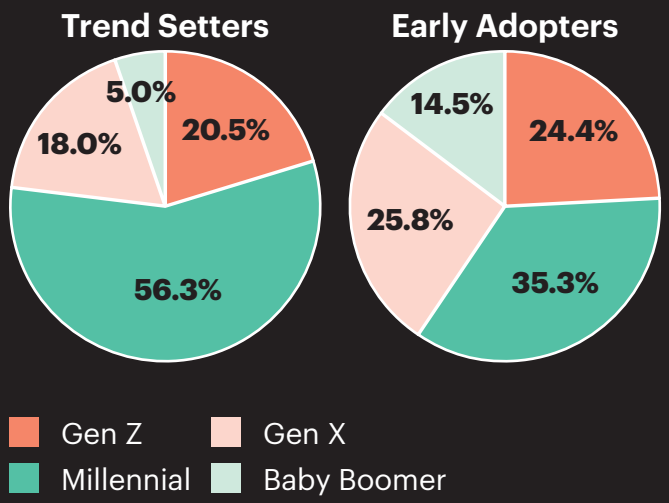
Trend Setters	Early Adopters
Bumble	Canada Goose
Blizzard Entertainment	Lacoste
crypto.com	Athleta
twitch	SeatGeek
acorns	Acura

Trend Setters vs Early Adopters: What's The Difference?

A new brand? Trend Setters are the first on the scene, excited to embrace the latest and greatest. Early Adopters follow trends rather than start them. Using QuestBrand data, we find that Trend Setters tend to skew younger, have a higher income, and a higher education, than Early Adopters.

The pie charts below, graphing use of ChatGPT, highlight the age differences between Trend Setters and Early Adopters. A larger portion of Trend Setters are Gen Z or Millennials, while Early Adopters have a higher percentage of Gen X and Boomers.

Generational Breakdown - Trend Setters and Early Adopters Who Use ChatGPT



QuestBrand. 1/1/24-9/30/24. Base: Trend Setters, n=937. Base: Early Adopters, n=672.

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