

2024

# *Digital Lives Decoded Malaysia*

Connecting to a smarter  
and safer digital life

 telenor asia | **GWI.**



# Foreword



**Håkon Bruaset Kjøl**

Senior Vice President  
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Telenor first embarked on our journey in Malaysia in 1999, taking an ownership stake in Digi, now CelcomDigi, amidst the excitement of the new millennium. As we mark our 25<sup>th</sup> year in Malaysia, I am pleased to present the 2024 edition of **Telenor Asia's Digital Lives Decoded (Malaysia)**.

Now in its third year, this study focuses on how mobile connectivity is shaping smarter and safer lives in Malaysia. We also delved into how the proliferation of new technologies, such as AI, is making a mark in Malaysia, with 3 in 4 people already using AI tools in their daily lives.

With universal smartphone ownership (99%) and significant daily usage in Malaysia (averaging close to 5 hours a day), mobile connectivity remains an integral part of life, shaping how people in Malaysia connect, work, and navigate the world around them. Our study highlights a common appreciation for mobile devices as a gateway to a smarter life, enabling greater and quicker access to information, providing engaging entertainment, boosting productivity and supporting general well-being.

At the same time, the growing integration of AI into mobile devices has raised the stakes around understanding cyber threats and maintaining robust security measures to protect personal data. While many respondents are enthusiastic about the potential of AI to enhance their lives, our study reveals emerging concerns about data privacy and the privacy paradox people increasingly face.

As Malaysia stands in prime position to capture the opportunities in 5G and AI, bringing people on the journey is not just about increasing adoption and awareness, but also about equipping them with skills to safeguard their online experience and build better digital lives.

As we look to the future, we hope this study provides valuable insights into the digital behaviours and attitudes of Malaysians, to guide policymakers, businesses, and individuals towards a safer and smarter digital future.

Together, we aspire to build a digital Malaysia that is empowering, secure, and inclusive for all.

# In this report

04 2024 snapshot

08 Living a smarter and safer digital life

12 Scams and improving security posture

19 Navigating AI perceptions and impact

28 Conclusions

## Methodology

This report is based on a survey that Telenor Asia commissioned GWI to undertake in August 2024. Survey respondents were granted anonymity and Telenor's involvement was not disclosed.

GWI has a panel of **over 22 million internet users** globally. To ensure its research is reflective of the online population in each market, GWI sets appropriate quotas on age, gender, and education.

GWI's recontact methodology enables respondents who have completed its core survey within the last year to be recontacted to take additional surveys. This data can then be synchronised with the core data, which consists of over 57,000 data points.

All figures in this report are among internet users aged 16-64 in Malaysia, and drawn from the following studies:

### GWI Core

- Conducted quarterly, with questions remaining the same wave-on-wave
- Q3, Q4 2023 and Q1, Q2 2024, N=17,117

### GWI Zeitgeist

- Conducted monthly, questions change month-to-month
- April 2024, N=751

### Telenor's research

- Using GWI's recontact methodology
- Fielded June 24<sup>th</sup> to July 13<sup>th</sup> 2024, N=1,004

**Generations referenced throughout are defined as follows in 2024:** Gen Z aged 16-27, Millennials – 28-41, Gen X – 42-60, Baby boomers – 61-64



# 2024

# snapshot

## Mobile devices are integral to Malaysians' daily lives

Smartphone ownership is universal among internet users in Malaysia (99%), with 86% identifying it as their primary device for accessing the internet. This is consistent across all demographics.

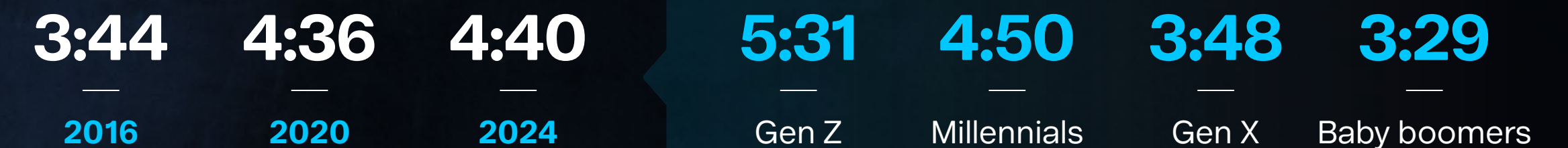
This usage exceeds the average for the Asia-Pacific region, underscoring the dominance of mobile in the digital landscape.

As of 2024, Malaysians spend an average of **4 hours and 40 minutes** online daily via mobile devices, marking a one-hour increase since 2016.

Looking at how behaviours are being shaped, it is clear that mobile devices are not just communication devices, but a gateway to smarter, safer, and more connected lifestyles.

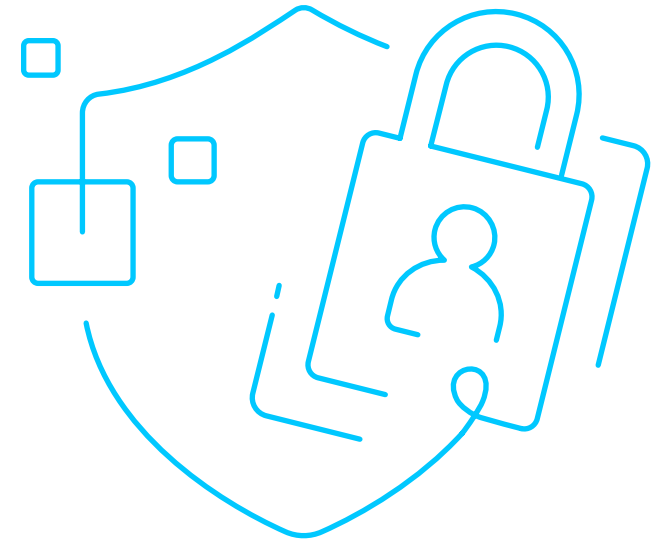
### Daily time

Time spent online via mobile daily (h:mm)



Source: GWI Core • Audience: internet users aged 16-64

## Privacy concerns are ever-present in Malaysia



In the face of digital evolution and increased awareness of online security, personal data privacy continues to be top of mind in Malaysia.

In 2024, just under 4 in 10 Malaysians expressed concern about how businesses are using their personal data, a figure that has remained stable over the past five years.

2 in 3 Malaysians feel that they lack control over their personal data online. However, among this subgroup, 68% say they regularly employ privacy tools such as ad-blockers, decline cookies, clear browsing history or use VPNs.

There is clearly a knowledge gap to empower all users to use these tools. These figures suggest a disconnect between the use of these privacy measures and an understanding of their effectiveness, suggesting that even with these tools, the users' fundamental concerns about privacy are not fully alleviated.

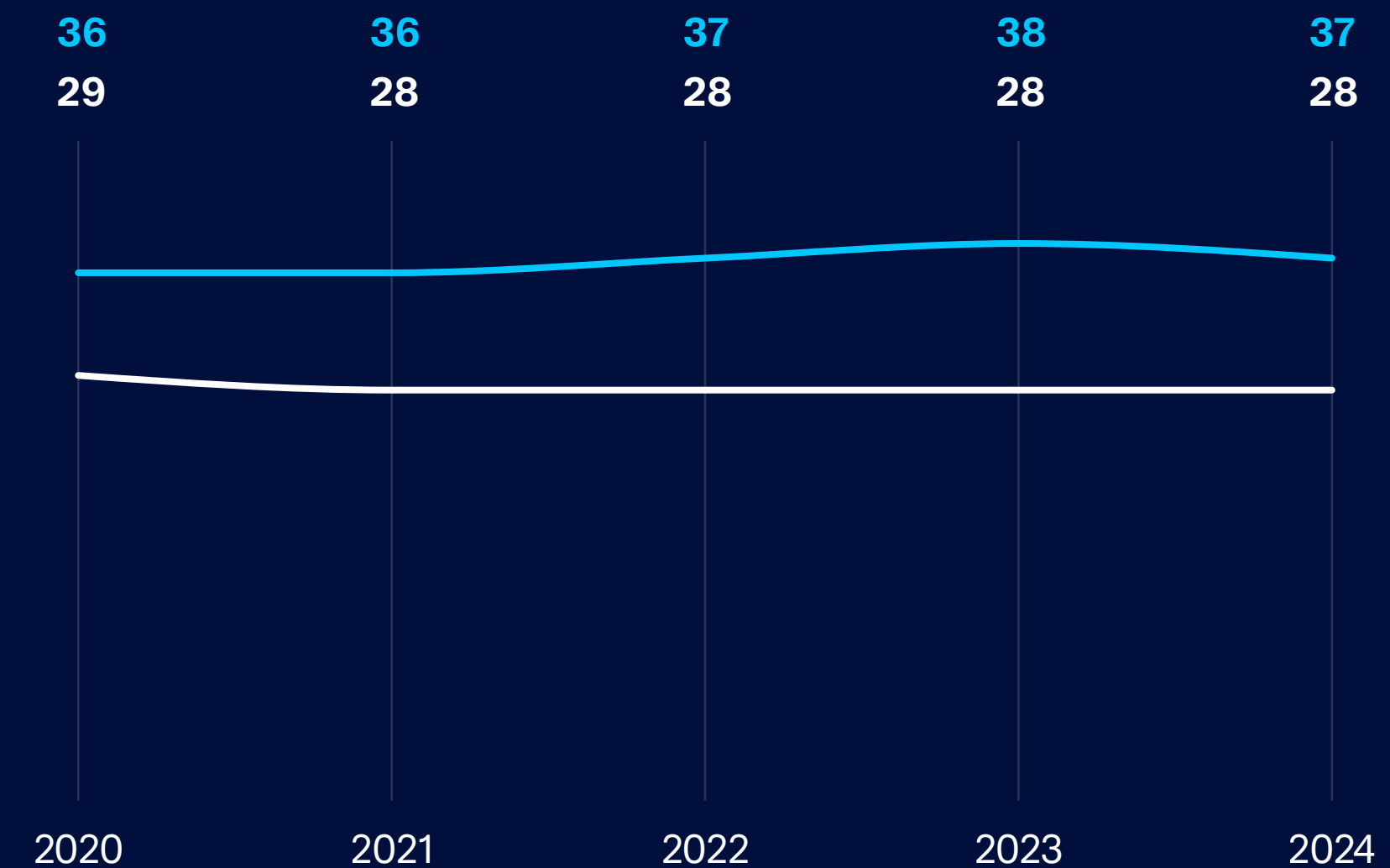
46% of Baby boomers (64-64 years of age) say they worry how their personal data is being used, versus 36% of Gen Z (16-27 years of age). This explains why the oldest generation is the most likely to want brands to be transparent about how they collect and use data, with 4 in 10 Baby Boomers saying so.

## Baby boomers worry most about data privacy

### Attitudes to online privacy

% who say the following describes them

- I worry about how companies use my personal data online
- I feel in control of my personal data online



36% 28%

Gen Z

34% 28%

Millennials

41% 27%

Gen X

46% 38%

Baby boomers

Source: GWI Core • Audience: internet users aged 16-64

6 in 10 believe AI will have a positive impact on the future of society



## AI is making its mark in Malaysia, but views on its impact are divided

When looking at attitudes towards emerging technologies, 1 in 2 Malaysians say they're most excited by AI. This excitement is highest among males (57%) and high-income consumers (58%) and is consistent across age groups. This interest in AI has remained stable in the last two years, proving it's not just a passing trend.

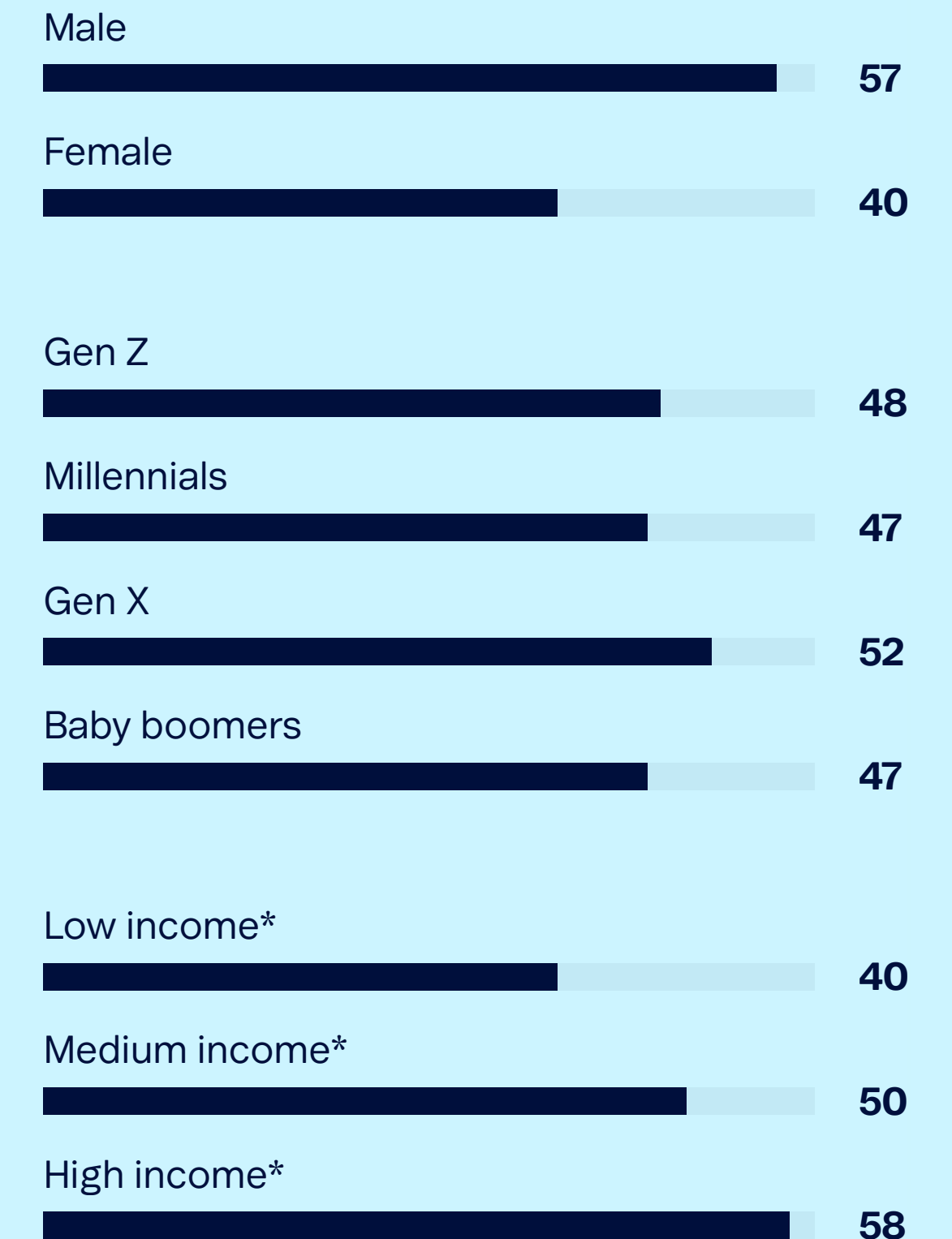
The role of AI has also grown in significance. Among the skills that AI has helped to improve, problem solving, research and creativity/idea generation come up top. As AI continues to evolve, its applications will diversify further. Looking ahead, data analysis is expected to be a key area where AI can provide even greater value.

## Excitement for emerging technologies

% who are excited about these technologies



### AI excitement by demographics

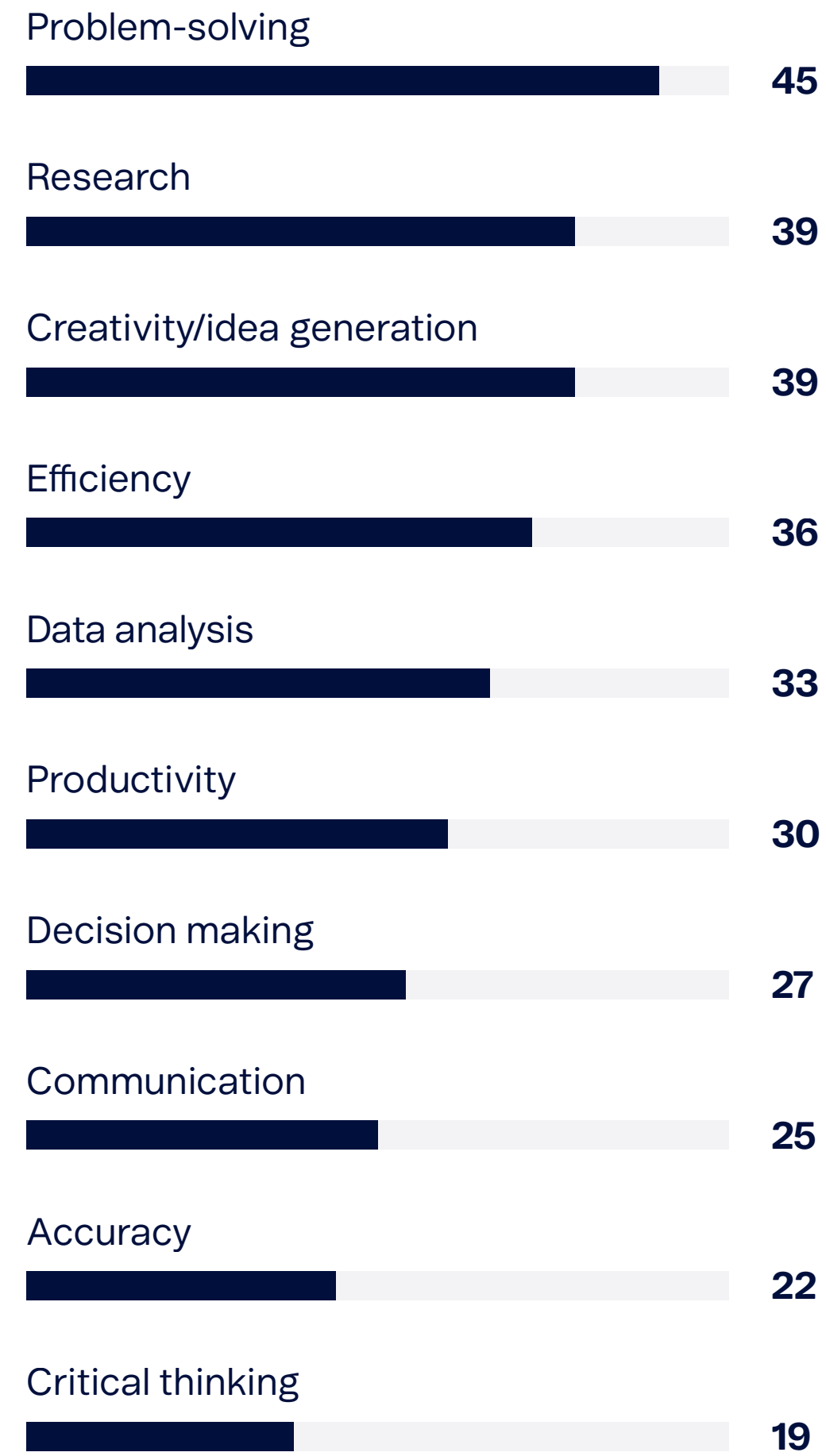


\*Low income ≤ 30,000, medium income 30,001–80,000, high income ≥ 80,001

Source: GWI Core • Audience: 17,117 internet users aged 16-64

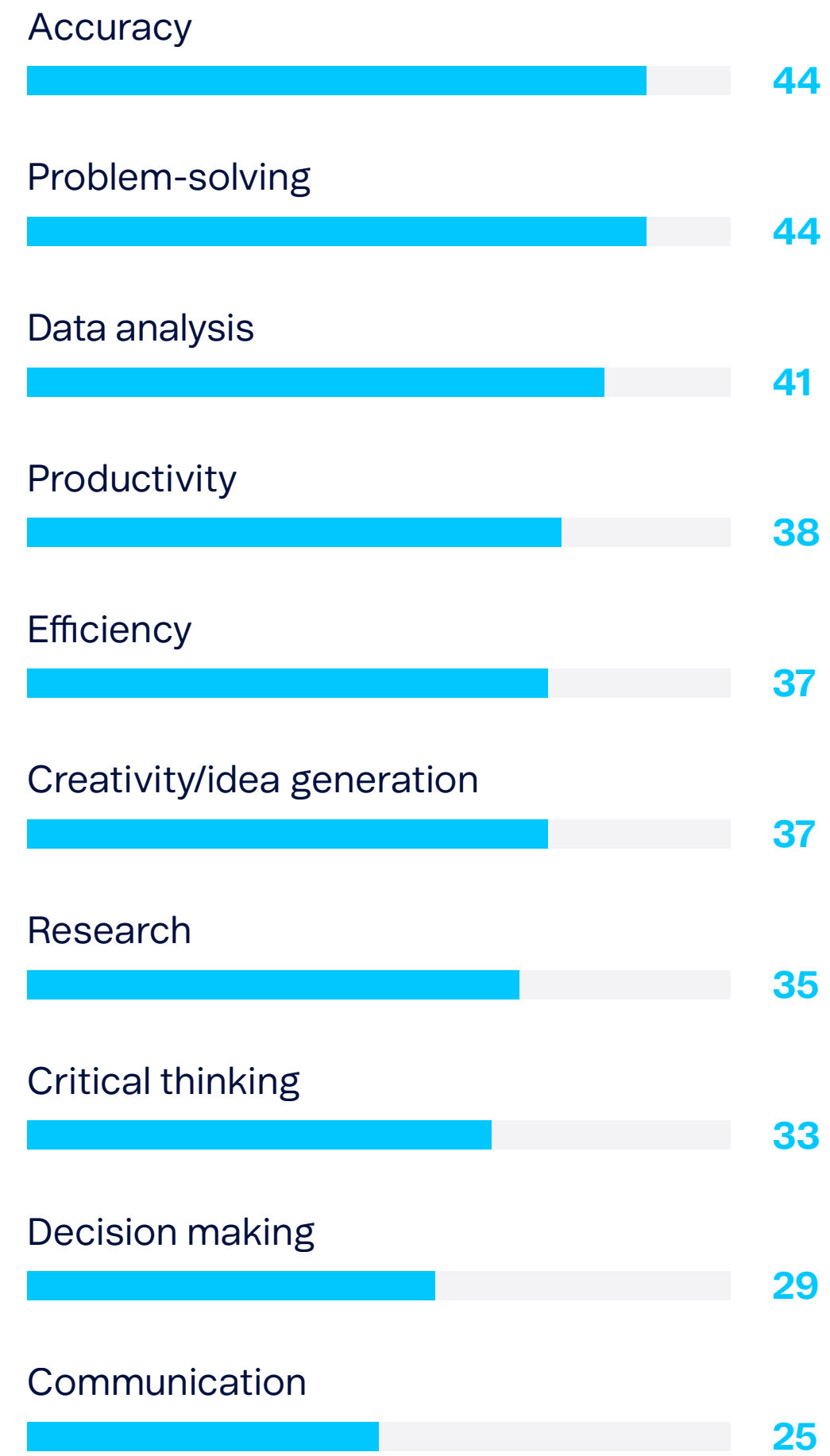
## Skills improved by AI

% who say these skills are their most improved by using of AI



## Future impact on skills

% who hope AI will become more useful for these skills in the future



Source: GWI Zeitgeist April 2024 • Audience: 509 internet users aged 16-64 who have used an AI tool in the last month



# *Living a smarter and safer digital life*





# How mobiles help daily life

% who say their mobile phone has been extremely helpful in the following areas of life

● Extremely helpful ● Helpful ● Unhelpful

Keeping up to date with the latest news



Keeping you entertained



Teaches me new skills



Social life



Career



Staying active

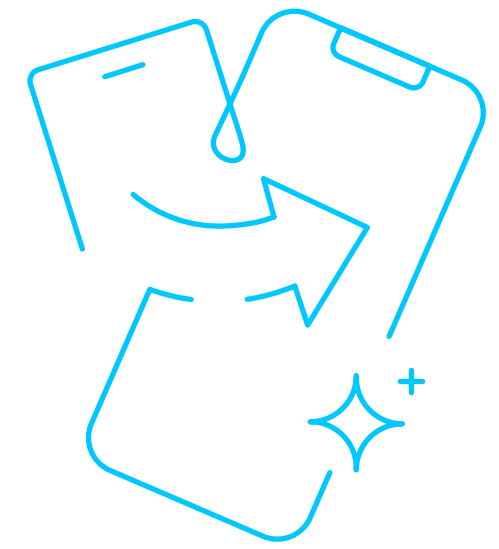


Work-life balance



Source: Telenor study • Audience: 1,004 internet users aged 16-64

# Mobiles are helping people in Malaysia to live a smarter life



Greater and quicker access to information, enhancing navigation and connectivity, boosting productivity and supporting general well-being are some of the ways the mobile phone has enabled people to live a smarter life.

## Access to information

2 in 3 (67%) say that being able to search for quick answers and solutions has enabled them to live a smarter life. Among those who view the benefits of mobile devices outweighing the risks, easy access to information, communication and services any-time/anywhere is the second most cited benefit, just behind connecting with others. Additionally, 38% find their mobile phone extremely useful for instant access to the news.

## Daily productivity

Mobile phones boost productivity by helping users keep track of tasks and to-do lists (39%) and allowing users to work remotely (33%). Using apps to stay organised, manage tasks and increase productivity is a key benefit for 4 in 10.

## Social connectivity

Mobile phones have significantly improved social connectivity. 1 in 4 find them extremely helpful for maintaining relationships, while 3 in 10 say mobiles enable a smarter life through connecting them with like-minded individuals online. The ability to stay in touch with others is regarded as the top benefit of mobile phones, outweighing the associated risks.

## Financial management

Mobile phones also facilitate smarter financial management through tools like mobile wallets and expense tracking. Despite the sensitive nature of financial information and risks that come with it, 6 in 10 appreciate access to online banking and managing finances on their mobile phone.

## Ways mobiles are allowing smarter lives

% who say their mobile phone has allowed them to live a smarter life in the following ways



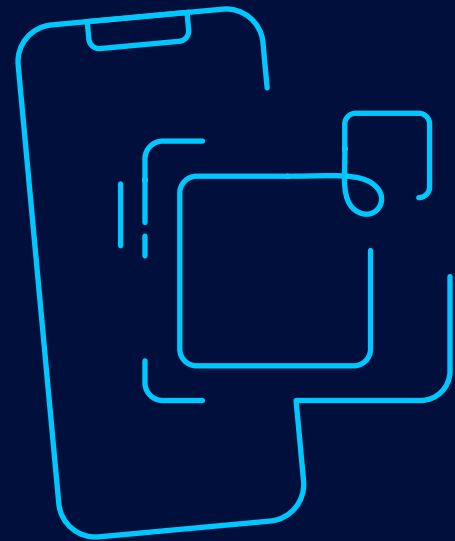
Source: Telenor study • Audience: 1,004 internet users aged 16-64

## Reasons mobile benefits outweigh the risks

% who say this is why the benefits of a mobile phone outweigh the potential risks



Source: Telenor study • Audience: 881 internet users aged 16-64



## People feel safer IRL (in real life) with their mobile

The impact of the mobile phone on safety is generally positive. 3 in 10 report feeling safer with a mobile phone, particularly men and younger users. Conversely, only 5% feel less secure with their mobile, despite the acknowledged risks of cyber threats and security concerns.

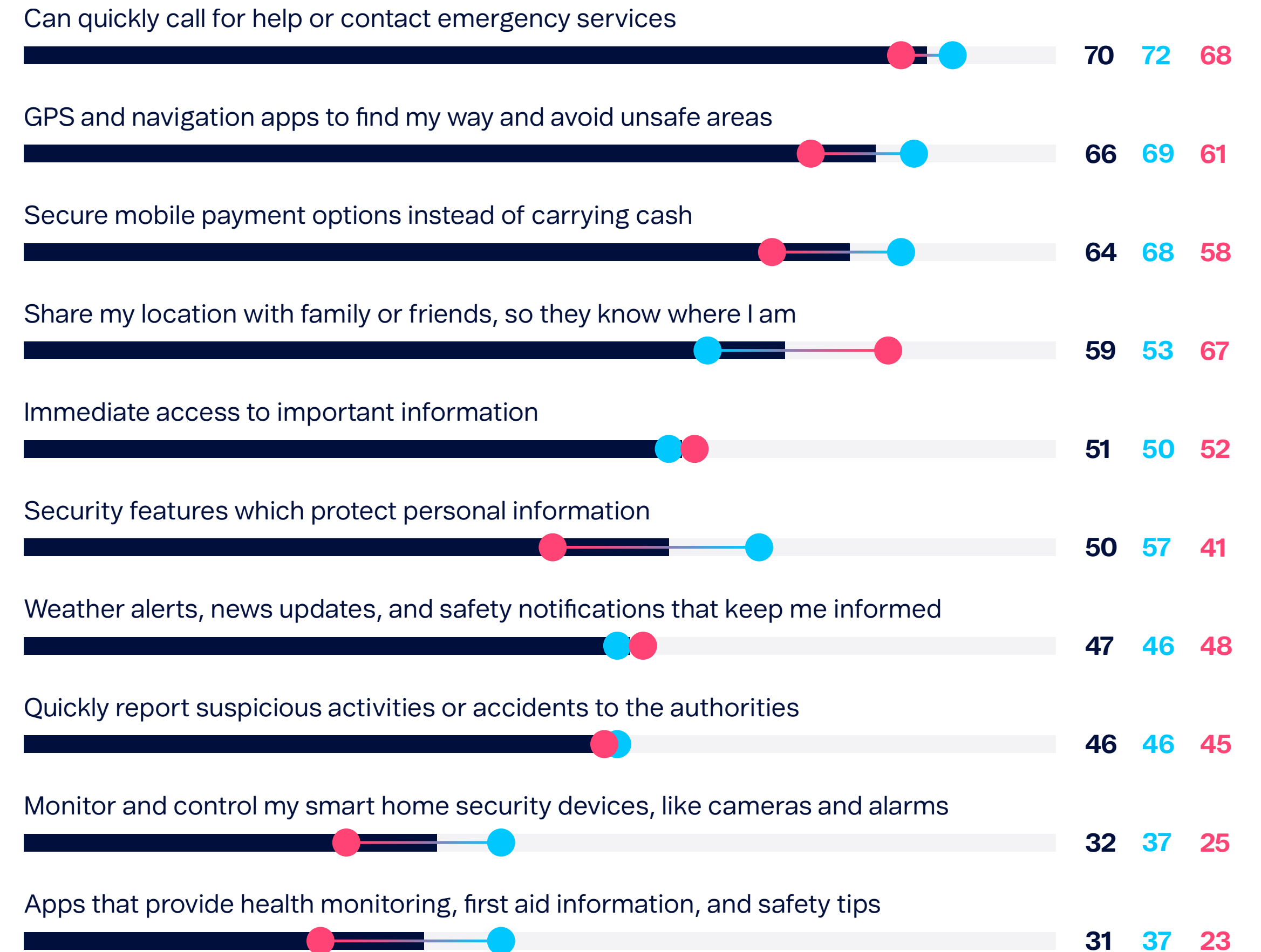
Among those who feel safer with their mobile phones, 70% cite the ability to quickly call for help in emergencies as the top benefit. Physical safety is also crucial, with features like GPS and navigation apps helping users avoid unsafe areas and share their location with family and friends.

Perceptions and priority of safety enabled by the mobile phone differs by gender. Women tend to feel safer knowing they can share their physical location, while men appear to prioritise on-line safety and security afforded by the mobile phone – placing value on secure mobile payments and security features that protect personal information.

## Reasons mobile makes them feel more safe

% who say this is why their mobile phone makes them feel safer

● All ● Male ● Female



Source: Telenor study • Audience: 295 internet users aged 16-64

# Scams and improving security posture

While Malaysians have reaped the benefits of connectivity, one of the dark sides of this digital age is the alarming rise in voice and online scams. Between 2021 and April 2024, more than 95,800 victims have lost a total of 3.18 billion Malaysian Ringgit to online scams.

**Source:** Isamudin, D. (2024, August 12). RM3.2b lost to online scams between 2021 and April 2024 – Gobind. [New Straits Times](#).



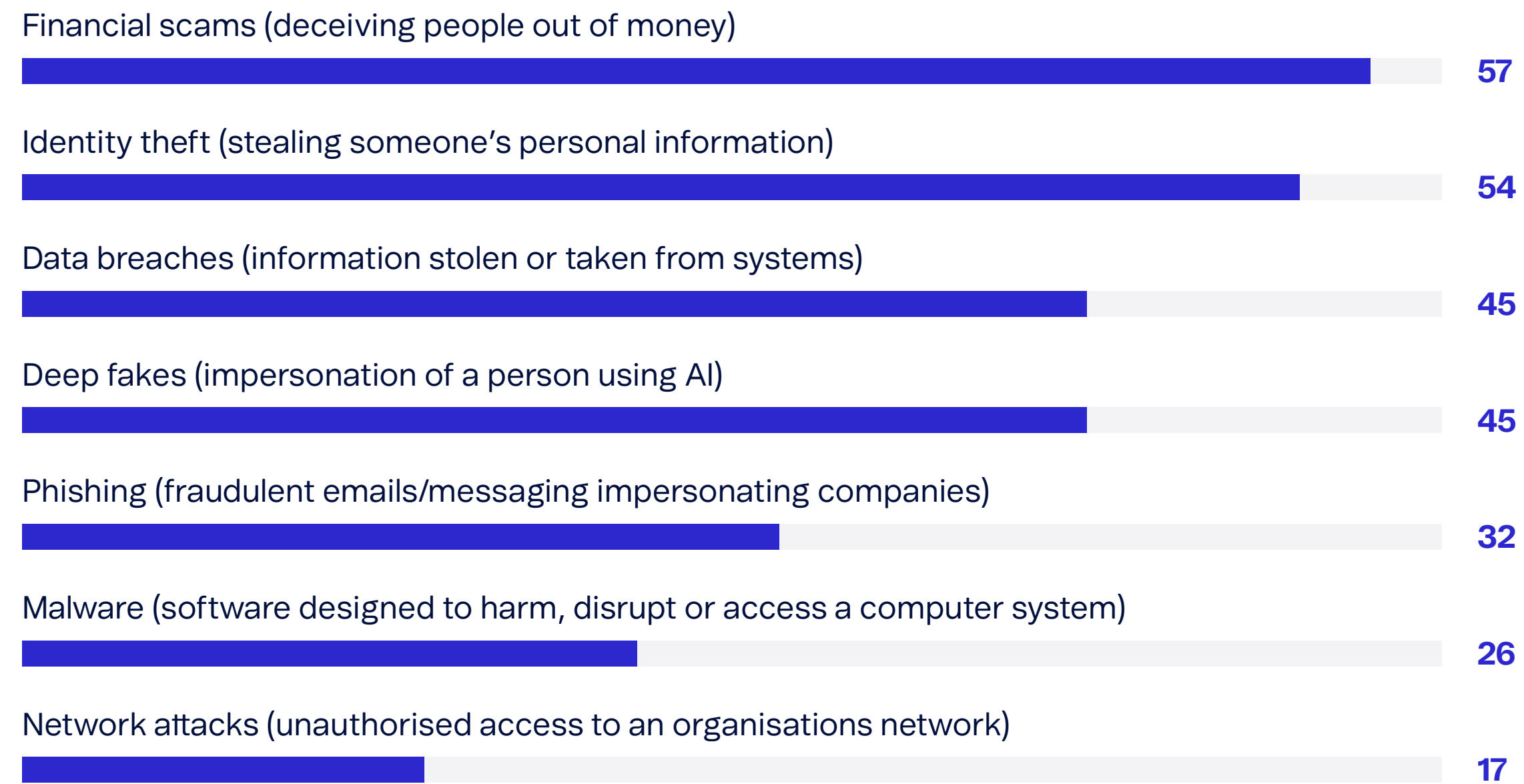
# Sophisticated financial scams are Malaysians' biggest worry

Yet, concern over cyber threats is high in Malaysia. Financial scams are the top concern, followed by identity theft, data breaches and deepfakes.

3 in 4 frequently worry about the security of their online accounts. Phishing is also a shared concern, especially among Gen Z.

## Cyber threat concerns

% who say these are top concerns with new technology like generative AI and IoT



Source: Telenor study • Audience: 1,004 internet users aged 16-64



# Privacy measures target these concerns, but people lack confidence

## Privacy tools used

% who use the following online privacy options

**97%**

At least one privacy measure

**67%**

Unsubscribe/opt out of lists

**84%**

Clear browsing history/cache

**66%**

Read privacy notices

**65%**

Use a private browsing mode or window

**64%**

Decline cookies on websites

**64%**

Decline consent to provide further contact

**58%**

Use an ad-blocker

**42%**

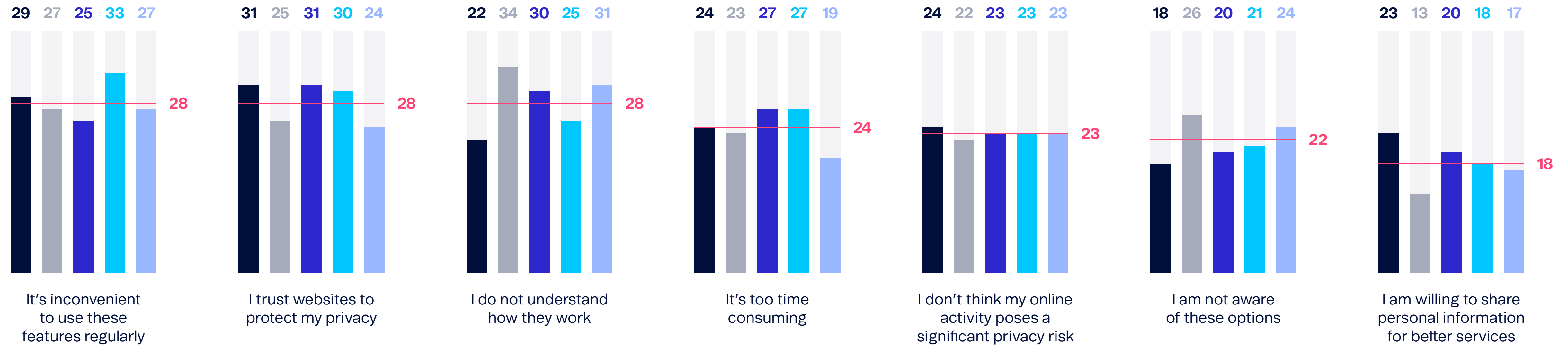
Use a VPN

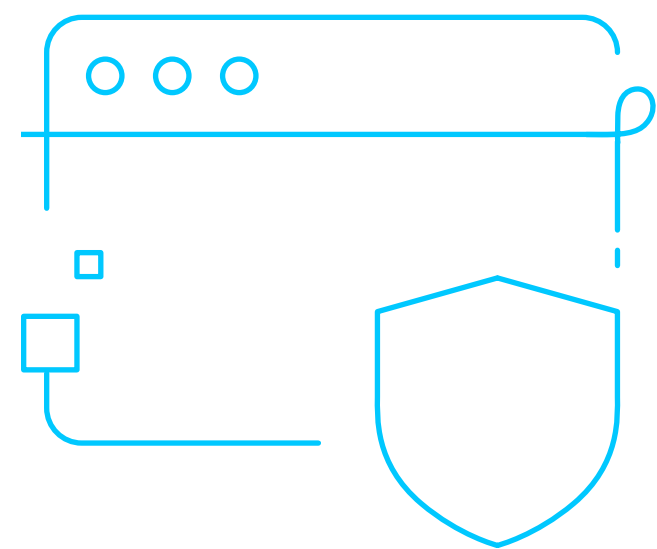
## Reasons for not taking action

Among those who do not take one or more privacy actions, % who say this is why

Source: Telenor study • Audience: 839 internet users aged 16-64

● All ● Male ● Female ● Gen Z ● Millennials ● Gen X and baby boomers





97% of internet users in Malaysia employ at least one privacy measure, with 84% of them clearing browsers. 2 in 3 read privacy notices.

While many currently utilise online privacy tools, more can be done. Among those not utilising these tools, common reasons include inconvenience, trusting websites to protect privacy, and a lack of understanding of how tools work.

This lack of understanding and awareness is pronounced among older generations – who find it most challenging to stay informed about security threats and are the least confident in their ability to protect their data online.

Gender gaps also exist – 62% of women feel confident in their ability to protect their personal data online, compared to 75% of men. Women are also more likely to cite lack of awareness and understanding as reasons for not using privacy measures, with the latter being their main reason.

This underscores the need for greater awareness and education on privacy tools to help Malaysians protect their personal data more effectively. Investing in training people to use these tools could bolster their confidence in protecting themselves against the sophisticated scams they face.

## Data privacy attitudes

% who agree with the following statements

● All ● Male ● Female ● Gen Z ● Millennials ● Gen X & baby boomers

Find it challenging to stay informed about the latest online security threats



Frequently worry about the security of my online accounts



Feel confident in my ability to protect my personal information online

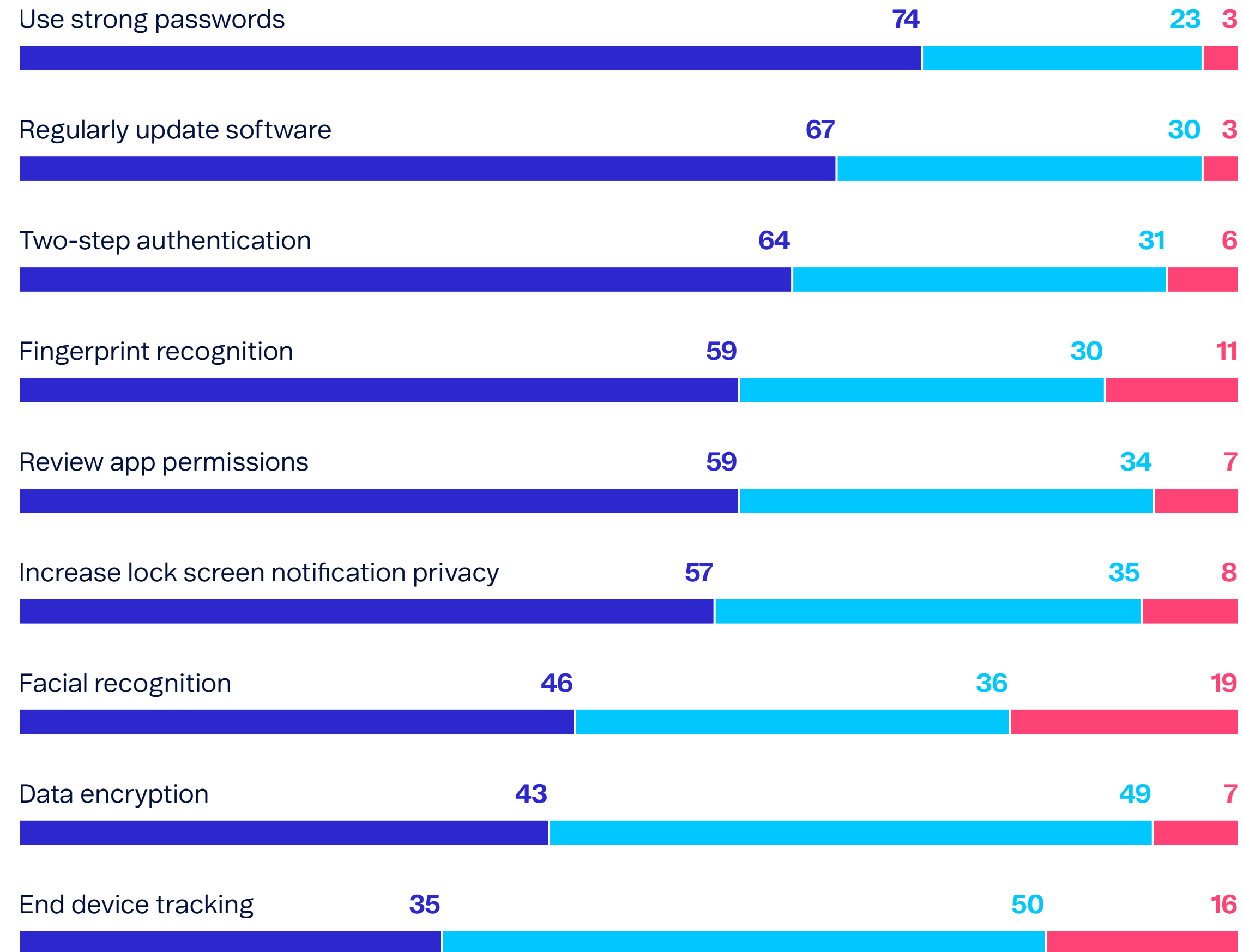


Source: Telenor study • Audience: 1,004 internet users aged 16-64

## Improving security posture

% who say the following with regards to improving the security on their mobile phone

● Currently doing ● Intend to do ● Will not do



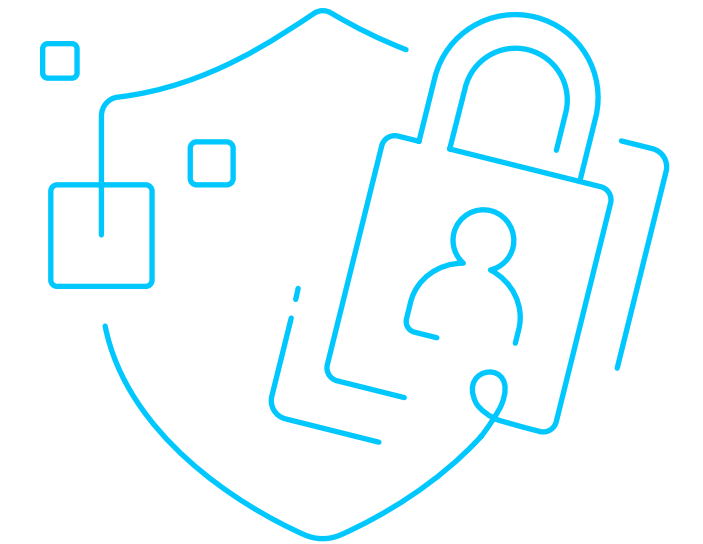
Source: Telenor study • Audience: 1,004 internet users aged 16-64

## Improving security posture is a top priority for Malaysians

Beyond privacy tools, a large majority of Malaysians are also taking active steps to improve the security on their mobile phones or intend to do so in the future. The most popular measures include using strong passwords (74%), regularly updating software (67%) and using two-step authentications (64%).

A key distinction between those who feel safer with mobile devices and those who do not is the use of data encryption features, which offer a way to protect personal data by making it difficult for others to read or access.

1 in 2 of those who feel safer with a mobile currently use these features, versus just 40% of those who feel the same or less safe. Interestingly, intentions to use this form of protection are higher among the latter group, highlighting a potential area of focus. Additionally, this group is cautious about the use of personal identifiers too, like fingerprint and facial recognition.







## Younger generations lead the way in securing their devices

Gen Z are the most confident in their ability to protect their personal information online compared to other generations, which is reflected in their online behaviour. They are more likely to tap on online privacy options, especially private browsing mode (77%), ad-blockers (67%) and declining cookies (73%). Additionally, they are currently leading in using a number of security measures on their mobile, including facial recognition (54%), data encryption (52%) and two-step authentication (72%).

## The privacy paradox – to share or not to share?

Interestingly, ending device tracking ranks lowest among actions that Malaysians are currently doing. 1 in 2 intend to do this in the future, but 16% say they will not. This highlights the common privacy paradox: people are concerned about location tracking yet are unwilling to give up the daily conveniences that come from allowing technology to track them.



# But whose responsibility is all this, anyway?

Malaysians clearly perceive a shared responsibility between institutions and individuals when it comes to cybersecurity and protecting on-line safety. Nearly two-thirds (66%) believe that the government is responsible for ensuring on-line safety. This is echoed across generations

and indicates a clear public demand for stronger regulatory oversight. Service providers, such as banks and telecom companies, are also seen as important players, especially for the older generations. 47% believe that responsibility falls on themselves.

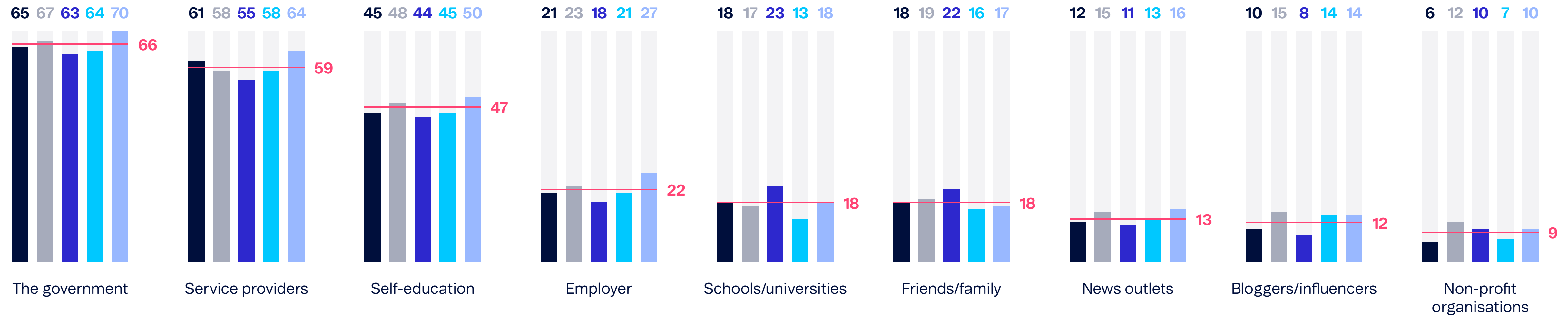
**2 in 3 believe that the government should take responsibility for online safety**



## Responsibility for online safety

% who say the following should take responsibility for ensuring their online safety

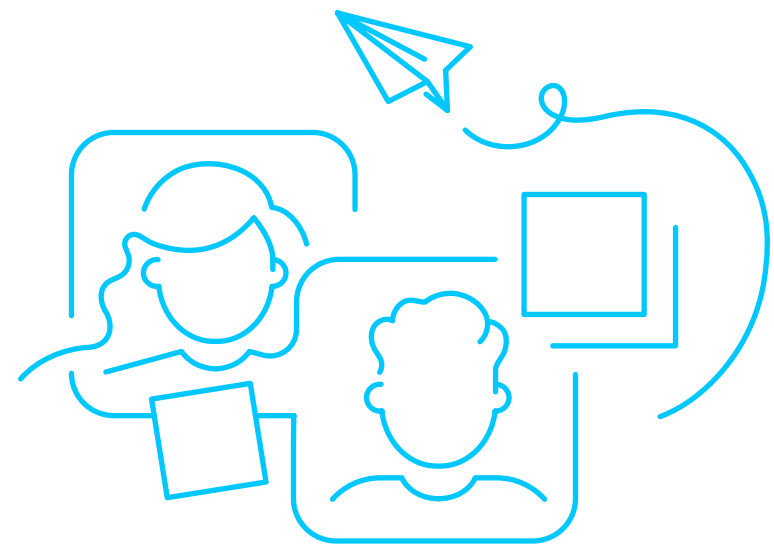
● All ● Male ● Female ● Gen Z ● Millennials ● Gen X & baby boomers



Source: Telenor study • Audience: 1,004 internet users aged 16-64

# ***Navigating AI perceptions and impact***





## Malaysians are generally positive about AI, but trust is divided

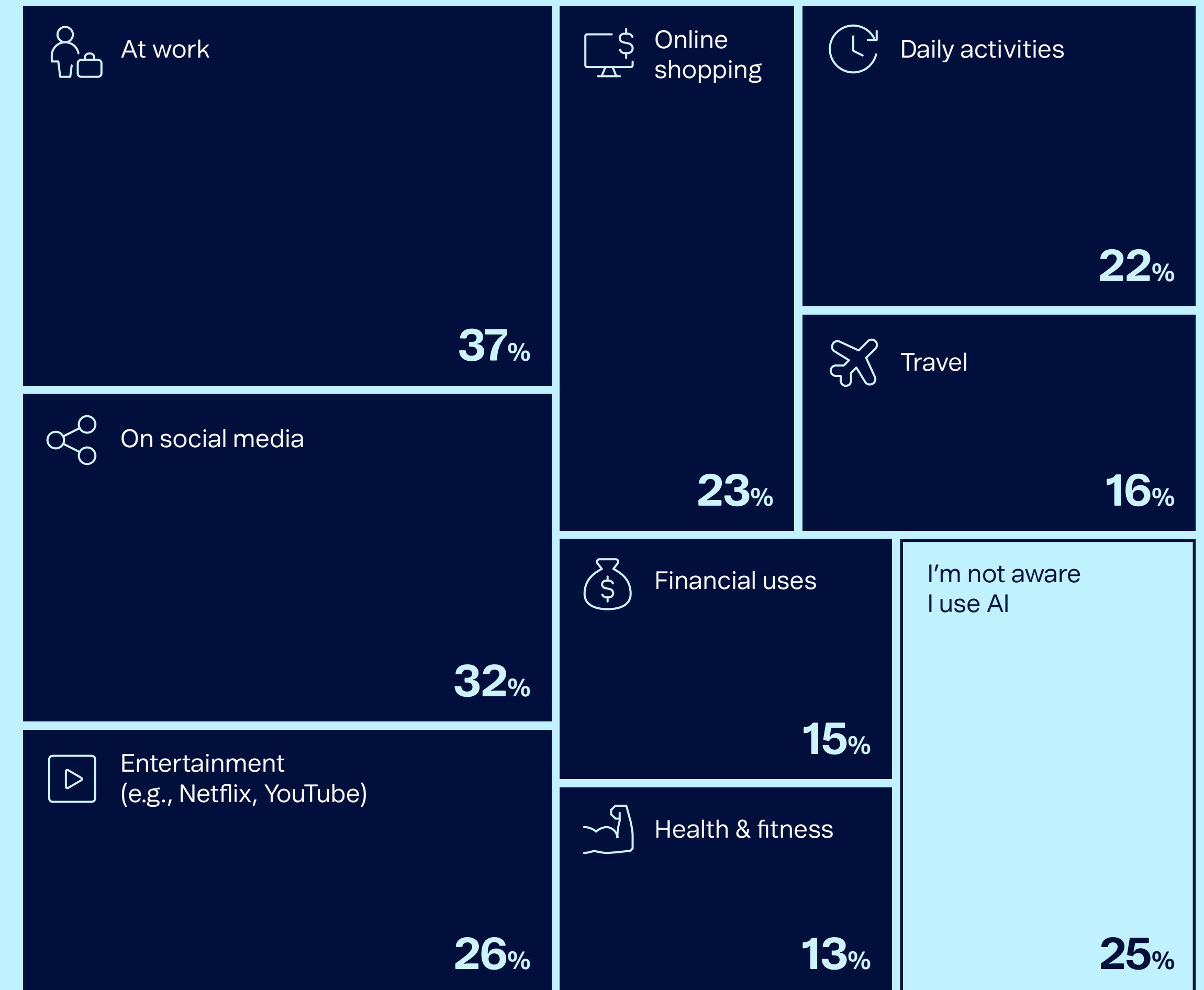
The enthusiasm for AI in Malaysia is clear, with 3 in 4 respondents already using AI tools in their daily lives. However, despite the rise and proliferation of generative AI platforms in recent years, trust in AI generated information is divided, with financial and medical advice inviting the greatest scepticism.

Despite this, Malaysians are generally positive about the future impact of AI on society, particularly on education, general health and transportation.

Across generations, we see varying perspectives. The older generations are more likely to say AI will have a negative impact on general health (26%), mental health (31%) and job security (45%). Gen Z are more positive about AI's impact on the country's economy (81%), but less positive than other generations with regards to crime prediction/prevention (40%), the arts (65%) and climate change mitigation (68%).

## Usage of AI tools

% who use AI in the following situations

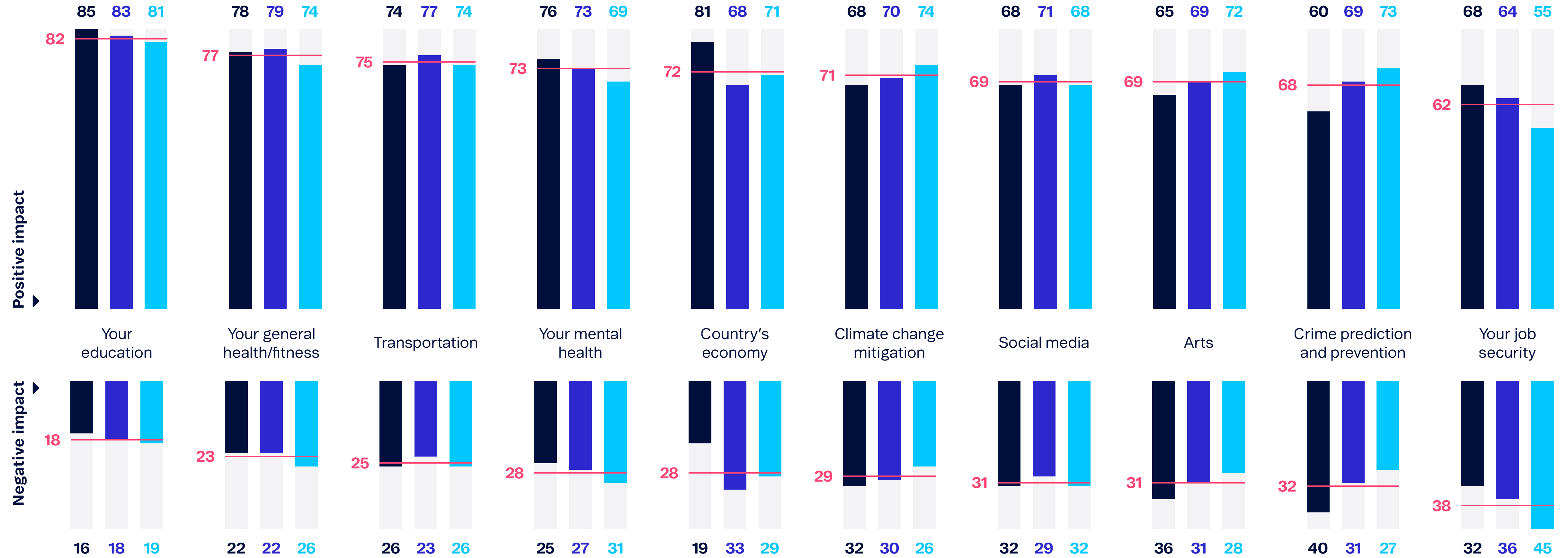


Source: Telenor study • Audience: 1,004 internet users aged 16-64

# Future impact of AI on society

% who think AI will have a positive/negative impact on the following

● All ● Gen Z ● Millennials ● Gen X and baby boomers

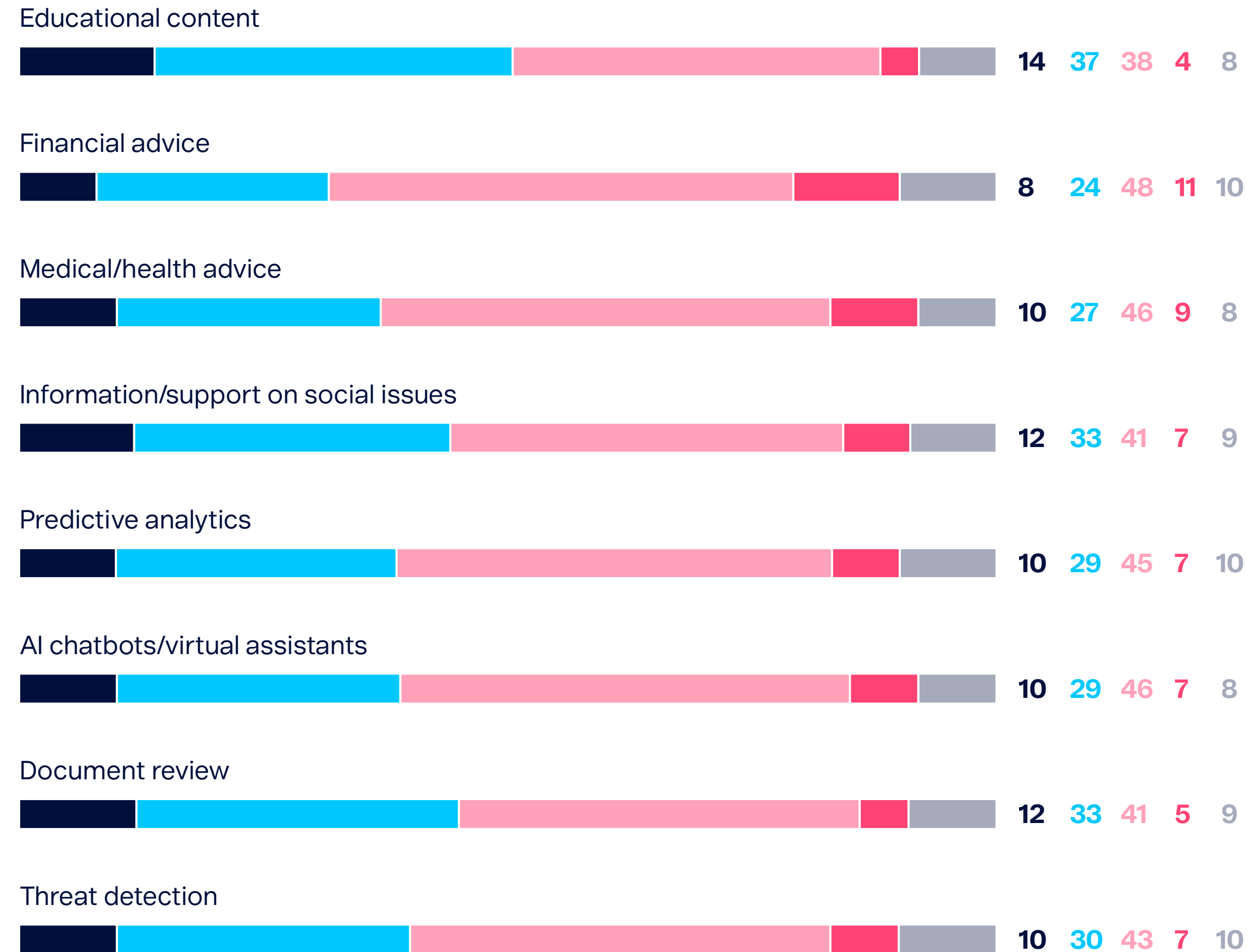


Source: Telenor study • Audience: 1,004 internet users aged 16-64

## Trust in AI-generated information

% who say they trust AI-generated information related to the following to this extent

● Trust completely ● Trust a lot ● Trust a little ● Don't trust ● Don't know



Source: Telenor study • Audience: 1,004 internet users aged 16-64

1 in 2 trust AI-generated educational content a lot or completely



# AI is already transforming education and the workplace

## AI as an educational tool

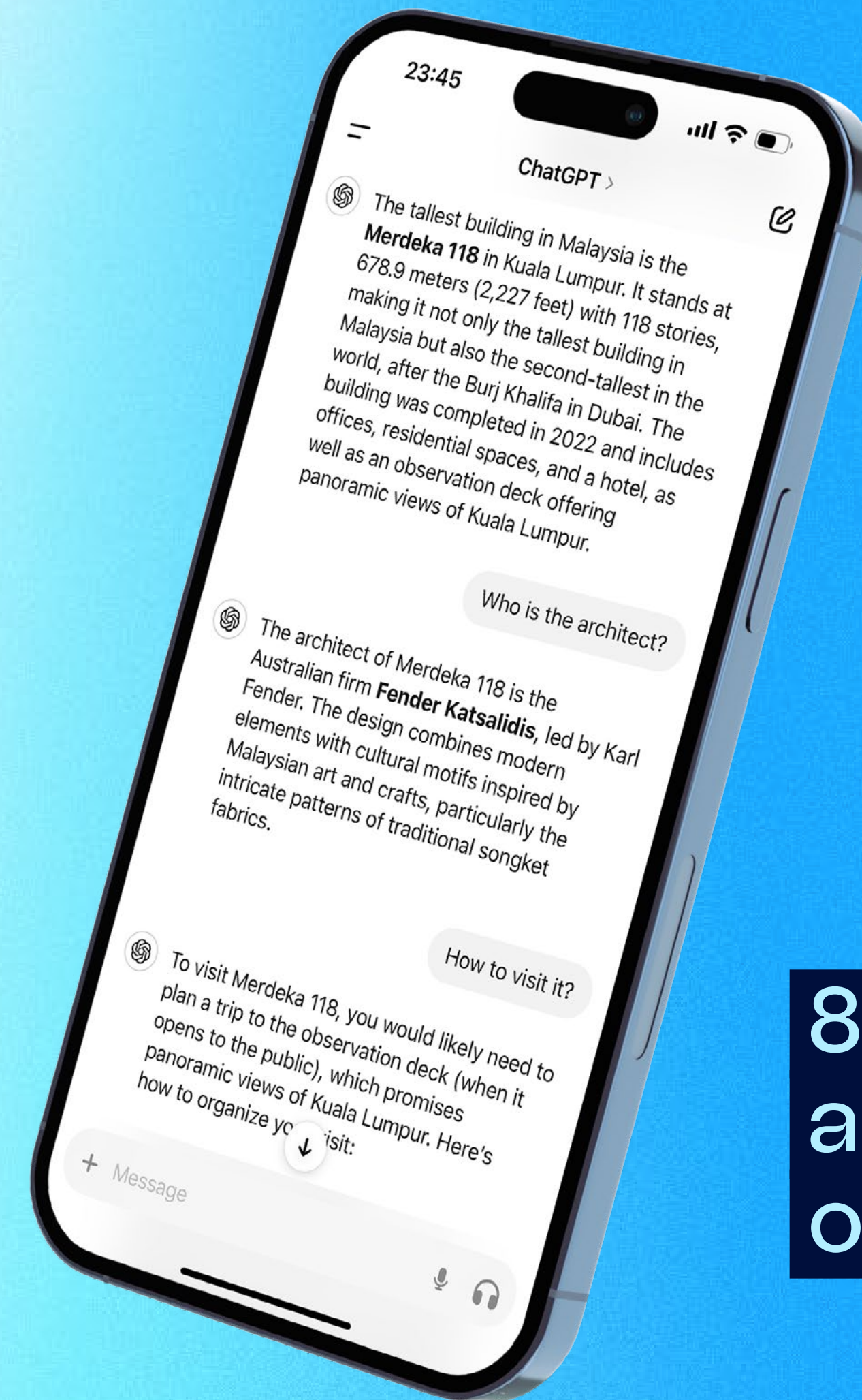
82% believe that AI will contribute positively to their education, surpassing anticipated benefits in other areas such as transportation, the economy and consumer health.

They are also most likely to trust AI-generated educational content, with parents more inclined to do so than those without children. This trust signals the potential for AI to play a pivotal role in revolutionising education, making it more accessible and adaptable to different learning needs.

## AI in the workplace

37% in Malaysia are already using AI at work, with this rising to 44% among Gen Z. Currently, about 1 in 4 Malaysians trust AI to review documents and predictive analysis, giving insight into the top uses of AI at work, now and in the future.

However, job security is the primary concern regarding the future impact of AI. Expanding the use of AI in the workplace is likely to build data literacy around its benefits and reduce the fears many have about its impact. Concerns over reduced critical thinking and problem-solving skills also point to the potential negative impact of using AI in the workplace.



8 in 10 are positive about the impact of AI on education

# Almost 6 in 10 worry about AI-integrated devices misusing personal data

## Misuse of personal data and collection without consent are top AI fears

The new era of AI-integrated mobile phones is transforming user experience – automating tasks and hyper-charging personalisation. To make that work, increasing amounts of data from the user will be harvested.

It is no surprise then that misuse of personal data is the top concern among Malaysians regarding AI-integrated devices, with 57% worrying about this.

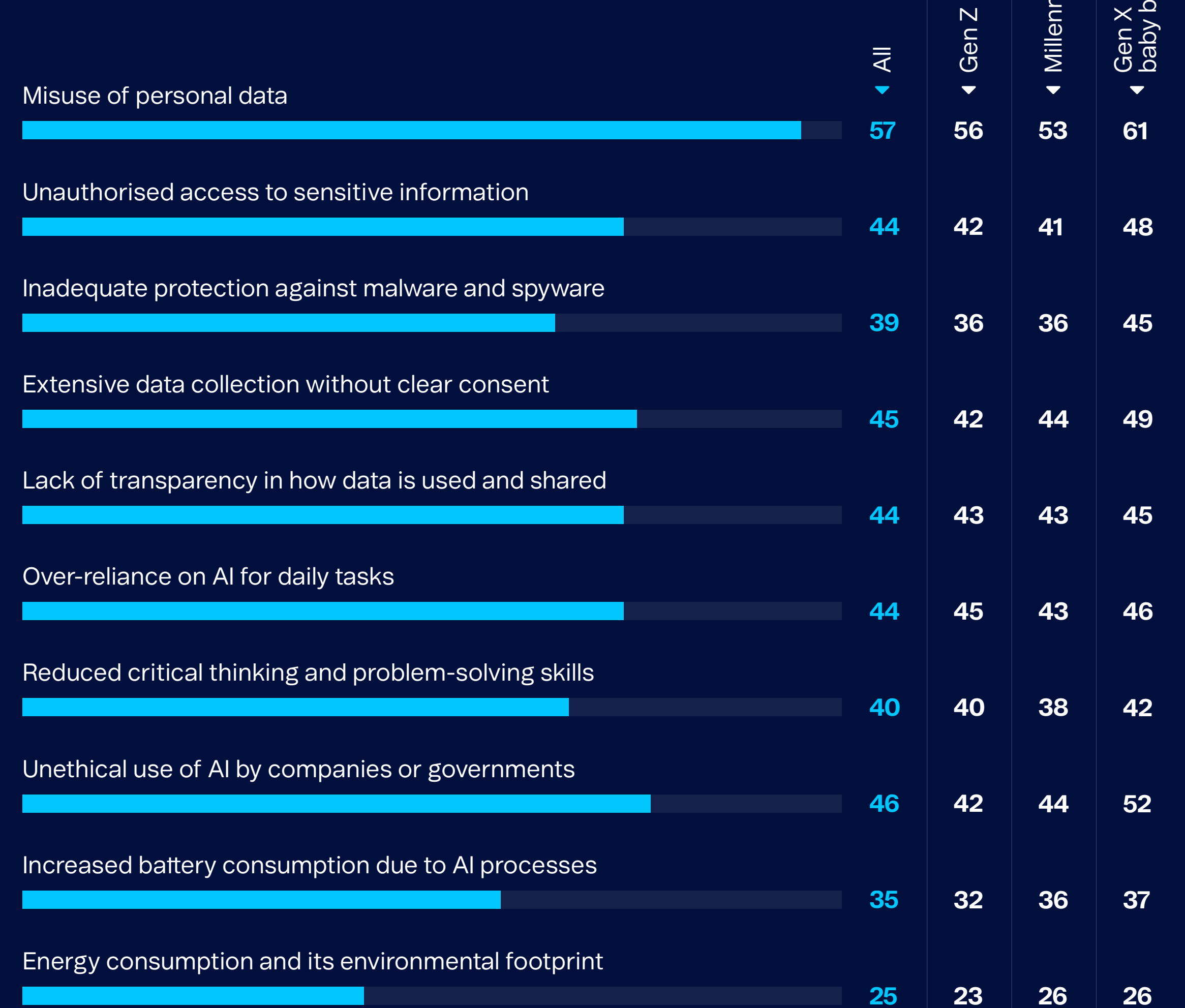
Malaysians also express concerns over unethical use of AI by companies or governments, and the spread of misinforma-

tion due to AI. 8 in 10 show concern for the impact AI has or will have on news stories and election campaigns, with around 1 in 4 being extremely or very concerned (GWI Zeitgeist Survey, February 2024). This is important because despite excitement, there are clear ethical and societal concerns to be addressed.

The oldest generations display greater concern in general and are especially worried about inadequate protection against malware and spyware (45%) and unethical use of AI by companies and governments (52%).

## AI smart device fears

% who have the following concerns around AI smart devices



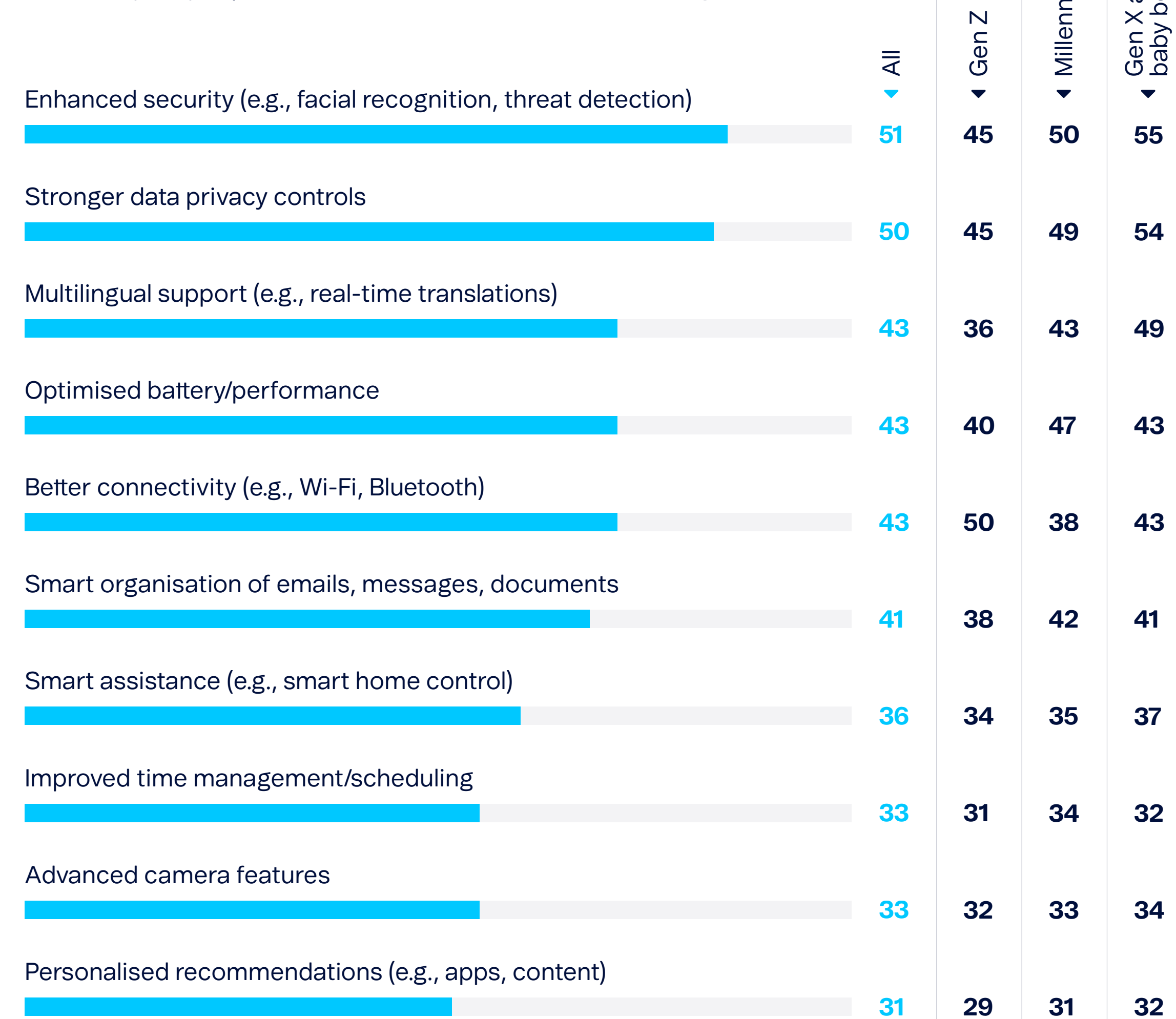
Source: Telenor study • Audience: 1,004 internet users aged 16-64





## AI smart device expectations

% who say they expect an AI smart device to do the following



Source: Telenor study • Audience: 1,004 internet users aged 16-64

# 1 in 2 expect an AI smart device to provide enhanced security

## Anxiety goes hand in hand with excitement

On the flipside, people are aware of the ways in which AI can contribute to a smarter and safer life. Around half of Malaysians say they expect AI smart devices to provide enhanced security and stronger data privacy controls, and these have greater appeal among the oldest generations.

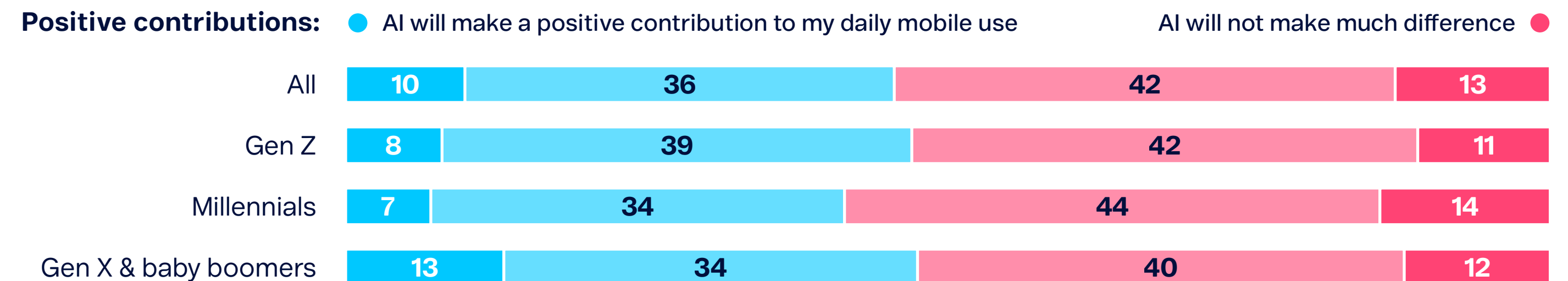
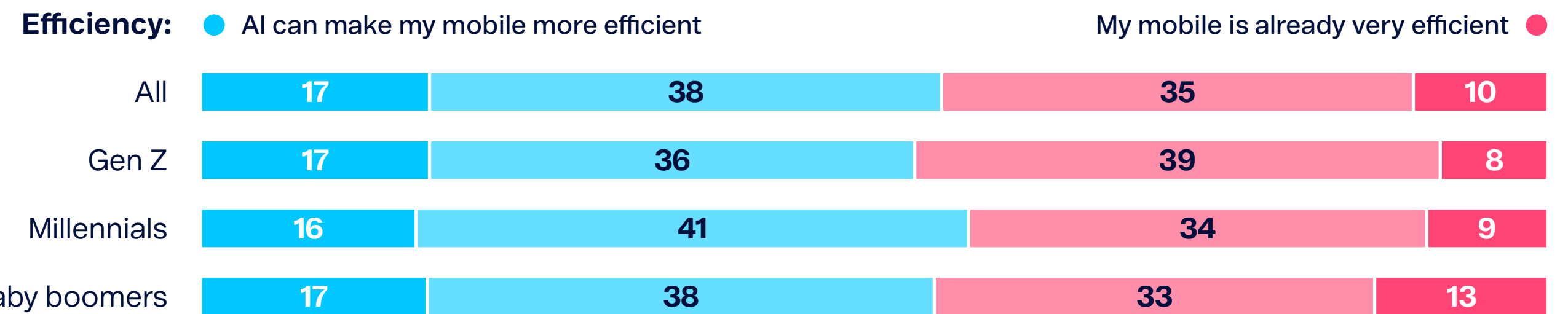
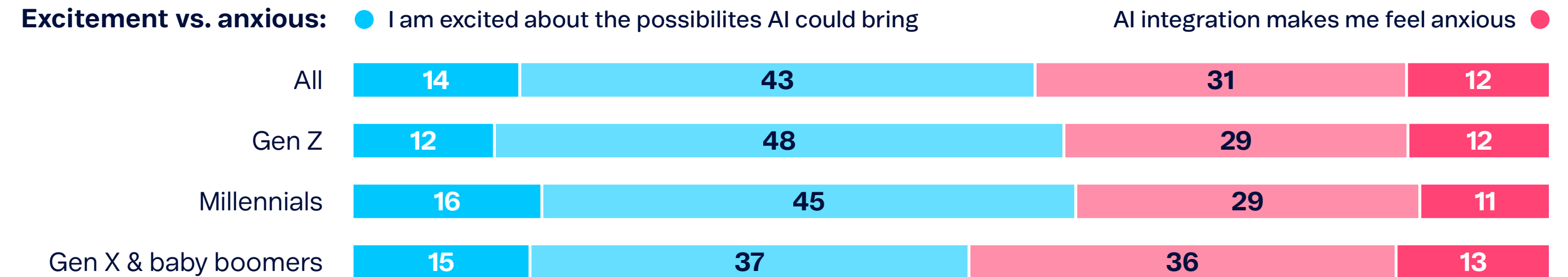
Interestingly, Gen Z are the only generation to prioritise better connectivity (e.g. Wi-Fi, Bluetooth) over improved data privacy controls (50% vs. 45%) when it comes to AI integrations. 55% think AI can make their mobile more efficient and that integrations will make a positive contribution to their daily mobile use. Males and Millennials are especially likely to say this.

Those who worry about their data privacy when thinking about AI integrations are just as likely as average to believe AI can make their mobile more efficient and to be excited about the new possibilities that AI could bring.

**This highlights a paradox: while people have data concerns, they still recognise the significant benefits AI can offer. Concerns do not necessarily decrease enthusiasm, and addressing fears could increase future adoption.**

## AI attitudes

% who say the following with regards to these statements (4-point scales)



Source: Telenor study • Audience: 1,004 internet users aged 16-64

## Women need more convincing of AI benefits

Women are more likely to be AI anxious when compared to men, and also appear to have less faith in AI's ability to make an impact on their life: they're 22% more likely than men to say their mobile is already very efficient without AI integration, and 13% more likely to say they don't think AI will make much difference in their daily mobile use.

A general lack of confidence with new technology is likely to be a key driver behind this; women are 29% less likely to be confident versus men (37% vs. 52%, GWI Core Survey). Men are also 40% more likely to follow the latest tech news (52% vs. 37%, GWI Core Survey), and therefore likely to be familiar with AI and its potential benefits.

To address this disparity, focusing on how AI can enhance mobile experiences in ways that resonate with women's specific needs and interests could be crucial in shifting perceptions and increasing their enthusiasm.



# Conclusions

## Where we are and looking to the future

From enhancing productivity, providing quick answers to supporting online and physical safety through advanced security features and GPS tracking, mobile phones are important tools to smarter, safer and connected lifestyles.

Yet the reality is complex, as people grapple with the trade-offs that come with living a more connected life. Looking at the major concerns to emerge from this year's study, we've identified three areas where individuals, institutions and government can invigorate efforts to create a safer online experience.

First, sophisticated financial scams and phishing attacks continue to erode confidence in online security. The alarming rise in cyber threats underscores the

urgent need for enhanced cybersecurity measures and public education on digital safety. As Malaysia moves into the 5G and AI era, the call to fight scams becomes even more pressing as it becomes easier to execute scams at scale. Creating awareness of these scams is important but needs to be accompanied with efforts that help people understand how to take preventive action. One good example is nationwide roadshows that CelcomDigi has led as part of the National Anti-Scam Action Coalition to educate Malaysians on scam prevention.

Second, personal data privacy remains a significant concern, particularly among older generations. These issues remain top of people's minds and affect how they trust and interact with technology.

While many Malaysians are taking proactive steps to protect their privacy, such as using strong passwords, regularly updating software, and enabling two-step authentication, a large majority still feel that they lack control over their personal data and frequently worry about the security of their online accounts. To close the knowledge-confidence gap, training and equipping people to utilise tools like ad-blockers, VPNs, and data encryption to safeguard against sophisticated threats to protect users' personal data effectively.

Finally, as AI continues to transform workplaces and educational settings, fostering an environment that builds data literacy around its benefits will help alleviate fears about its impact on critical thinking and

problem-solving skills. Demonstrating how AI can enrich the mobile experience will be crucial in shifting perceptions and increasing enthusiasm for this technology. Helping people understand the enhanced security and robust data privacy controls in AI-enabled devices can reassure a security-conscious population.

As Malaysia sets itself up for a future where AI-integrated devices are automating tasks and offering hyper-personalised experiences, it is clear that a collaborative approach to online safety is needed. By prioritising education, awareness, and holding high standards around responsible technology, together we can create a more secure digital landscape that empowers all Malaysians to thrive confidently in the digital age.

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