

McAfee's Modern Love Research Report

A look at how artificial intelligence is changing the future of love and relationships.

February 2023

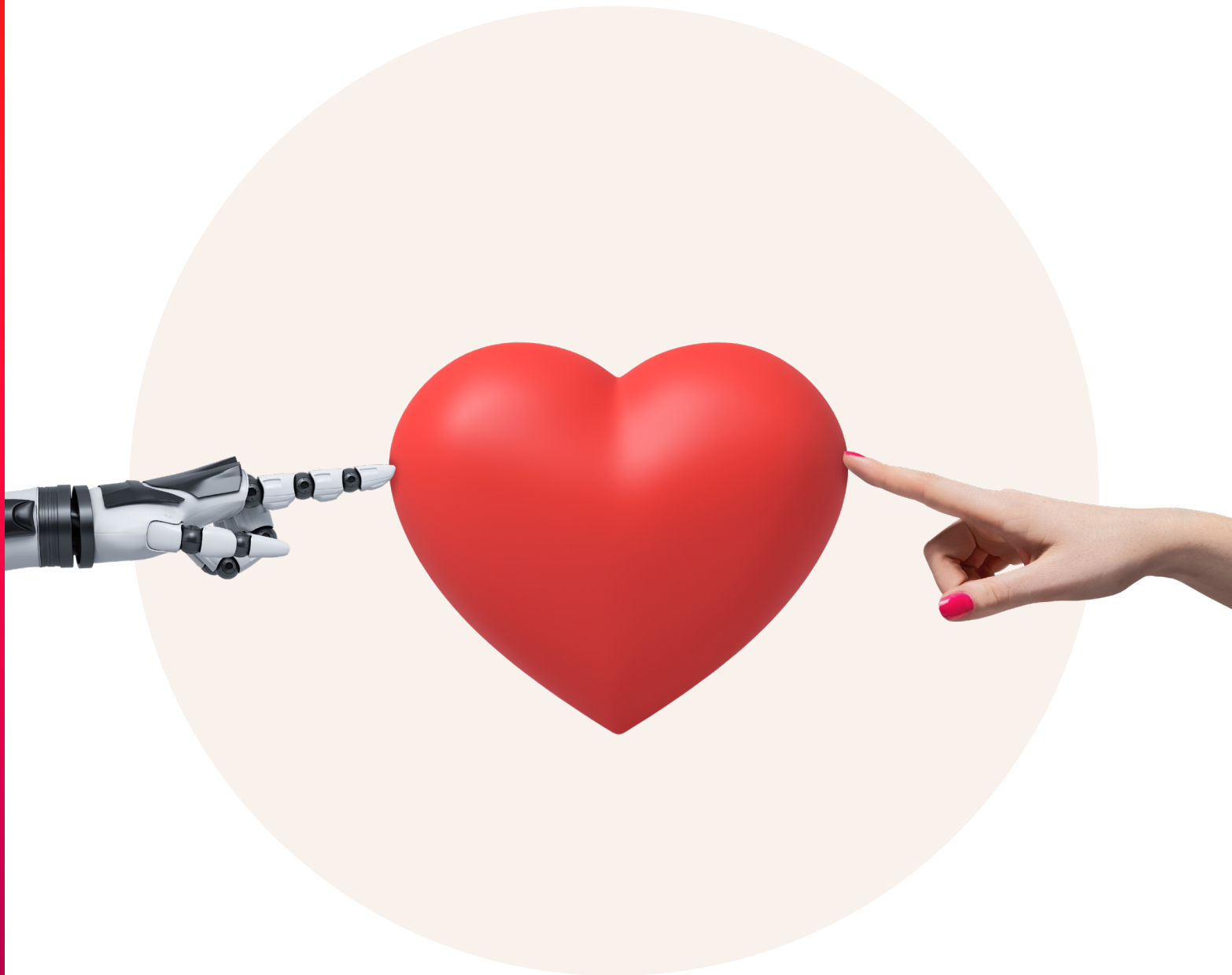
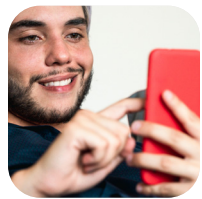


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Summary

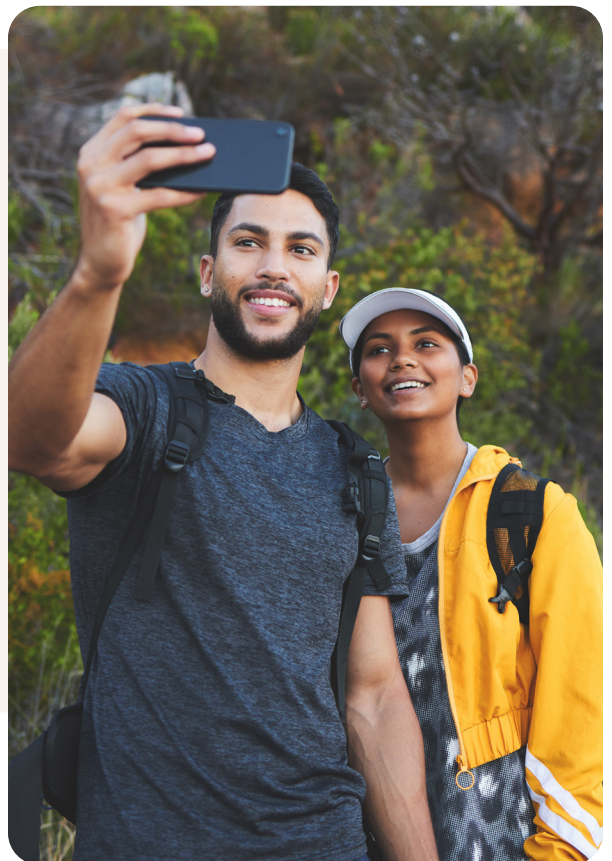
In February of 2023, to coincide with Valentine's Day, McAfee published its first Modern Love report, which reveals how Artificial Intelligence (AI) and the internet are changing love and relationships. From using a machine to write a love letter to being scammed by somebody using AI tools to appear more convincing, the study highlights a number of ways in which technology has changed the way we find love and declare it to our significant others — and it does not always have a fairytale ending.

The report is based on a survey of over 5,000 people in nine countries across the world and aims to help those looking for love stay safe online.

“Valentine's Day is a wonderful time to celebrate love and we believe people should be free to safely pursue and enjoy all the fun and excitement that comes with online dating, but it's also important to look out for tell-tale signs of malicious activity,” says Steve Grobman, McAfee Chief Technology Officer. “We don't want to put people off finding a perfect match online, but it's important that they only fall in love, not for a scam.”

Topics explored for this research report include:

- **Dating in the modern world** — the use of dating apps
- **Human versus machine** — the rise of AI and ChatGPT trends
- **Romance scams** — beware of catfishing
- **How to protect yourself** — top tips and advice



Topic One

Dating in the
modern world



Use of dating apps goes up
around Valentine's Day



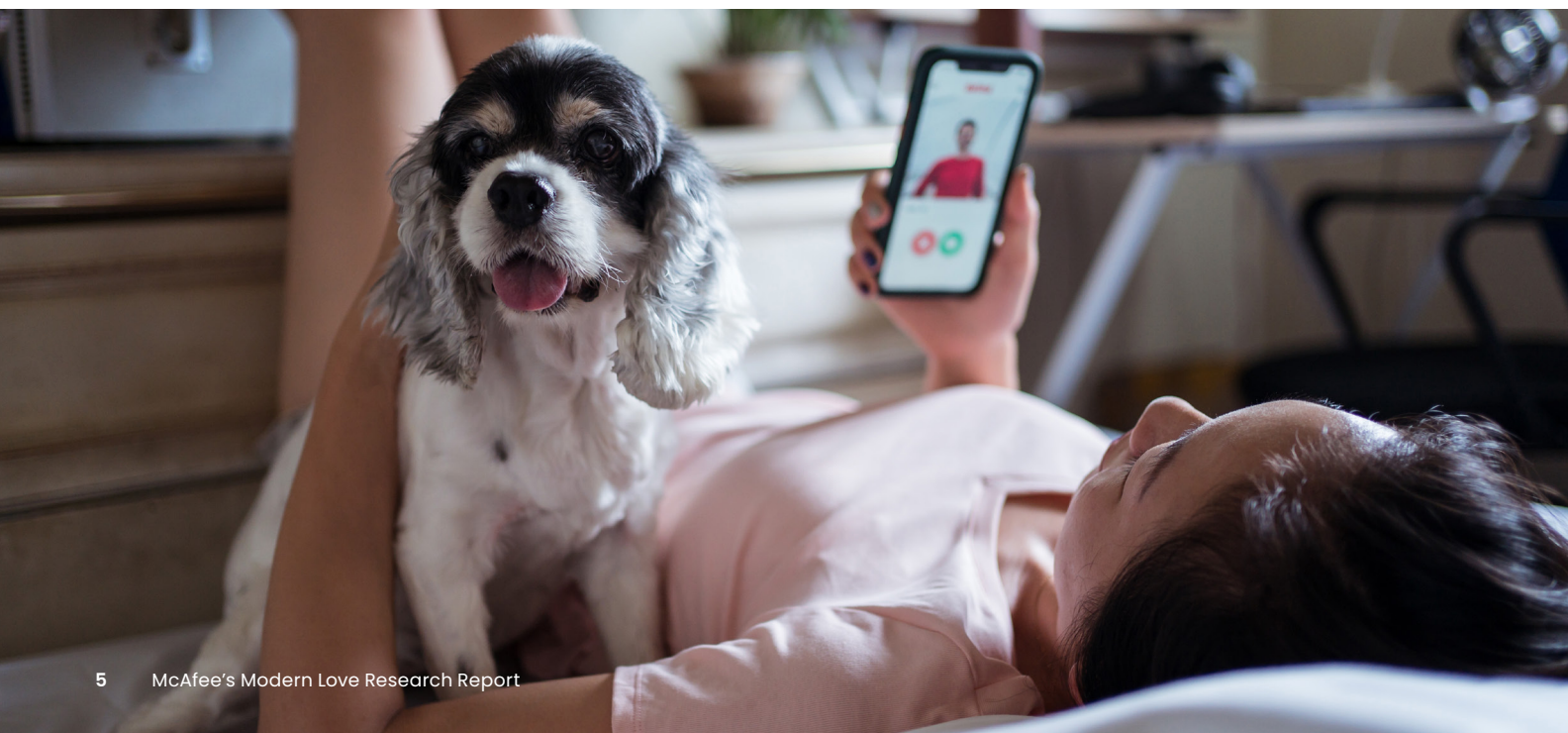
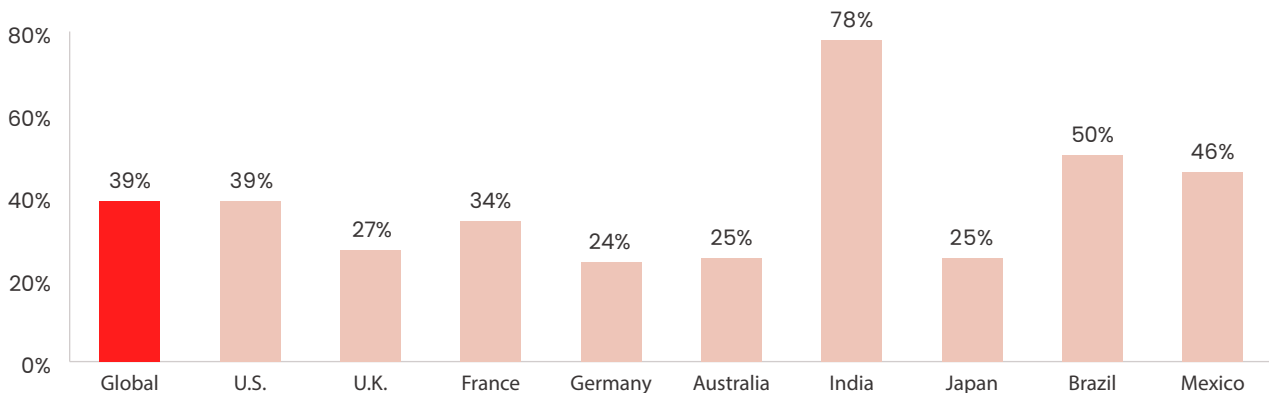
Dating in the modern world

Use of dating apps goes up around Valentine's Day

Finding love has changed significantly since the rise of dating apps such as Tinder, Bumble and Hinge. While new relationships used to start in bars, coffee shops and in the real world, they're now increasingly kindled online where people can find their perfect match from the comfort of the sofa.

In the lead-up to Valentine's Day, 39% of people said they would be more likely to spend time on dating apps or websites, but the biggest users could be found in India, where 78% of people said they'd spend more time swiping around February 14. That was followed by Brazil (50%) and Mexico (46%).

Percentage of adults who plan to spend more time on dating apps ahead of Valentine's Day



Topic Two

Who will win your love:
human versus machine



A quarter of people would
use AI to write a love letter



Who will win your love: human versus machine

A quarter of people would use AI to write a love letter

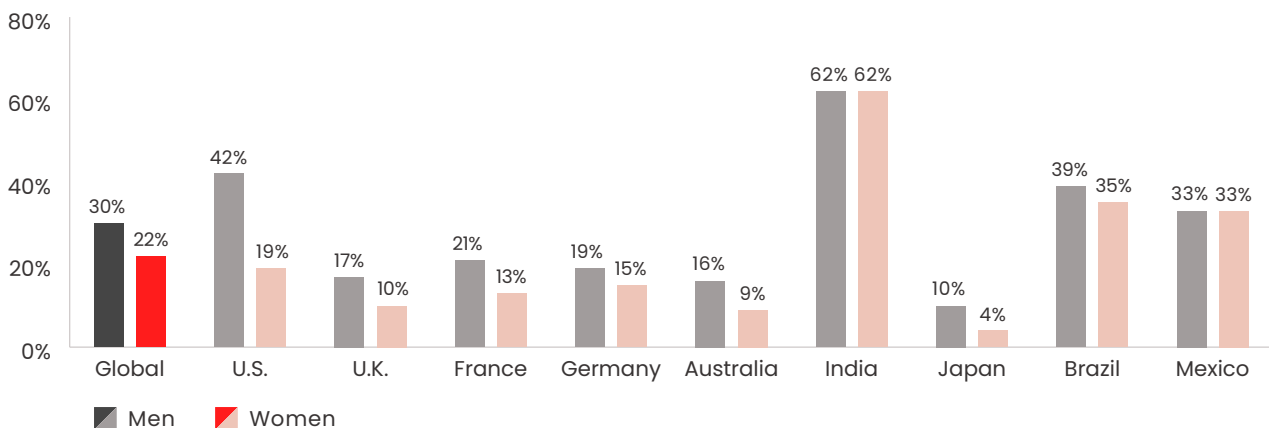
While sales of chocolates and flowers go through the roof on Valentine’s Day, for many people it’s words that carry the most meaning – and it looks like artificial intelligence is the love language of the future.

With the rise of web-based AI chatbot tools such as ChatGPT, people now have the opportunity to use machine-learning technology to boost their wooing skills.

More than one in four people (26%) are now planning to use artificial intelligence to write a note for the object of their affection, although with 44% saying they will not and 31% admitting they would not know how to, there are still much more who would write it themselves. For those who said they are open to the help from AI, it was more common among men (30%) than women (22%), while Indian men were most likely to use it (62%), followed by American (42%) and then Brazilian men (39%), which won’t help to dispel the idea that men don’t always put in the effort when it comes to romance.

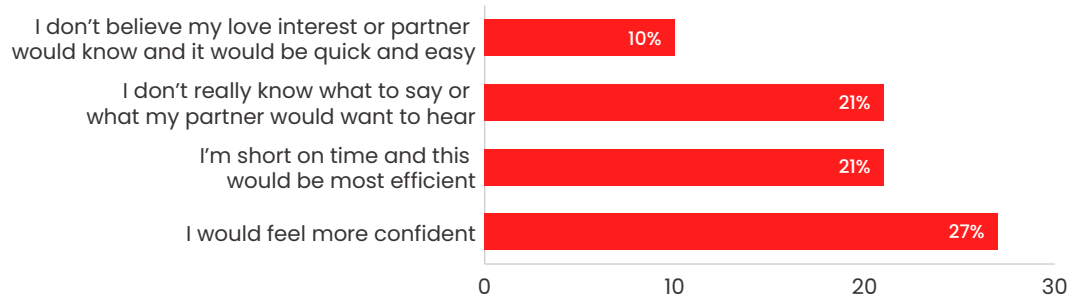


Adults planning to use AI to write love letters



There were multiple reasons given for wanting to use AI to write a love note. 27% said they would feel more confident that what they were sending would be well received, while 21% admitted they wouldn't know what to write without it, and another 21% said they didn't have time to come up with something on their own.

Top motivations globally for using AI for Valentine's Day



For those on the receiving end, 46% of people said they thought it was possible they might receive a machine-generated missive, a third of them admitted that they probably wouldn't be able to tell. The other two thirds were split equally between knowing it was fake and not being sure.

Using AI to write a Valentine's message is not without its risks, though. Regardless of gender, almost half (49%) said they'd be hurt or offended if they discovered what they'd received hadn't been written by their partner but by a machine. Fortunately for them, 38% of respondents said they would have no desire to use such a tool.

When asked whether they would consider using AI to enhance their dating profile, 28% said they would, with men more likely (33%) than women (23%).



AI and the rise of misinformation and disinformation

While using AI bots to help those who feel ill-equipped to express their feelings might seem like a harmless use of an emerging technology, not to mention more evidence that it has become truly mainstream, the rise of AI also presents greater risks when it comes to the spread of misinformation and disinformation and how AI could be used to perpetuate more malicious online activity.

To better illustrate the challenges people face when it comes to telling real from fake, McAfee's Modern Love study asked adults whether a ChatGPT love letter was written by a human or a machine.

My dearest,

The moment I laid eyes on you, I knew that my heart would forever be yours. Your beauty, both inside and out, is unmatched and your kind and loving spirit only adds to my admiration for you.

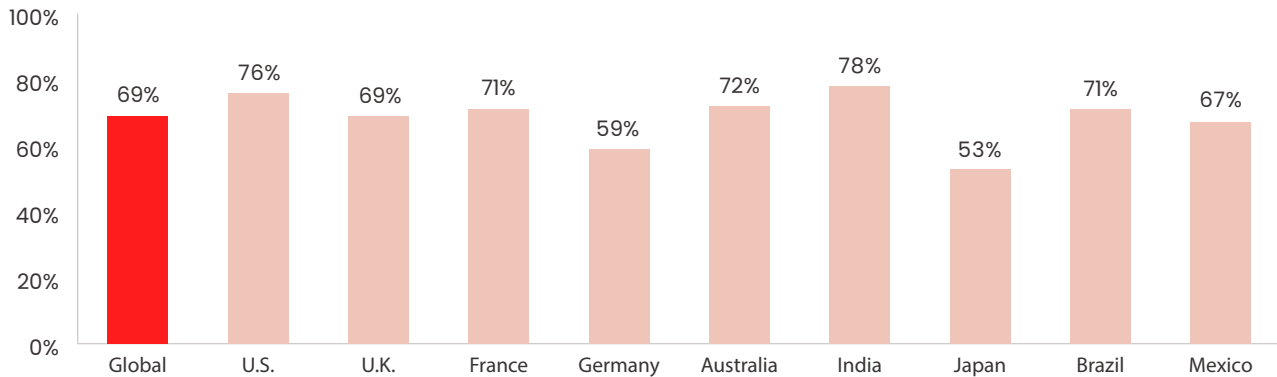
You are my heart, my soul, my everything. I cannot imagine a life without you, and I will do everything in my power to make you happy. I love you now and forever.

Forever yours,



Two-thirds of adults (69%) were unable to tell that this ChatGPT love letter was written by AI and not a human. Globally, Japanese and German adults were the most discerning with 53% and 59% respectively unable to tell, compared to 78% of Indians and 76% of Americans.

Percentage of adults unable to tell a machine-generated love note



And as we explore new use cases of AI, we also asked adults around the world their preference comparing a machine-generated love poem in the style of e.e. cummings to his original 1952 poem, i carry your heart with me.

*carry your heart with me(i carry it in my heart)
i am never without it(anywhere i go you go,my dear; and
whatever is done
by only me is your doing,my darling)*

*i fear no fate(for you are my fate,my sweet)
i want no world (for beautiful you are my world, my true)
and it's you are whatever a moon has always meant
and whatever a sun will always sing is you*

*loved you once loved you still always have always will
your smile like sun on my face warmth in my heart in every
embrace*

*i hold you close never to part in love forever heart to heart
your eyes like stars in the midnight sky i'm lost in them as
time goes by
and though the world may come undone my love for you
shall forever run*

Perhaps surprisingly, 65% preferred the imitation poem indicating not just how compelling and persuasive AI tools like ChatGPT can be, but also the place AI may very well have as a mainstay in not just modern love, but modern culture too.

With the ease of use around AI tools, we predict greater use cases and opportunities in how this technology will be leveraged as part of our daily lives. But with any technology that becomes mainstream, we also foresee greater risk to individuals as cybercriminals look to leverage such tools for malicious activity. Valentine's Day provides cybercriminals an opportunity to target those who may have their guard down while looking for love, and therefore be more vulnerable to falling for a scam.

"With the rise in popularity of artificial intelligence, particularly tools such as ChatGPT that anybody with a web browser can access, the chances of receiving machine-generated information are on the rise," said Steve Grobman, McAfee Chief Technology Officer. "While some AI use cases may be innocent enough, we know cybercriminals also use AI to scale malicious activity. It's important to always be on the look out for tell-tale signs of malicious activity – like suspicious requests for money or personal information."



"To find a true match, love-seekers should stay vigilant and use security solutions that can help safeguard their privacy and identity and protect them from clicking on malicious links a scammer might send."

– Steve Grobman

Topic Three

Be yourself



Catfishing is the most common type of dating scam



Be yourself

Catfishing is the most common type of dating scam

Using an app to swipe through the profiles of an almost endless stream of people might seem like the quickest way to find a date, but it also increases the chances of being catfished.

Catfishing, a term that was coined by a 2010 documentary about internet deception, refers to the practice of being duped by somebody with a fake online persona. The scammer uses pictures stolen from the internet to lure the victim into revealing details about themselves, or potentially even transferring them money.

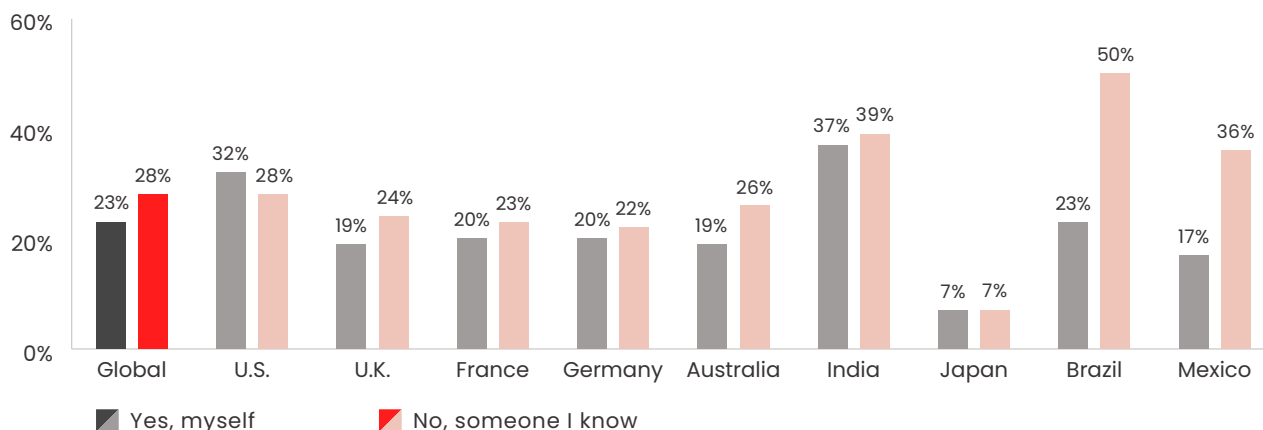
Our study found that 66% of adults have engaged in conversation with a stranger after being contacted out of the blue on social media, with Facebook Messenger (39%) and Instagram (33%) being the most popular platforms, while 51% of all adults admit to either being catfished themselves or knowing somebody who has.

Sixty-six percent of people under 30 years old have been catfished or know someone who has. This suggests both the heightened chance of risk due to more frequent online dating and that it may not just be older people who may be less technologically literate who are vulnerable to the practice.



People in India were most likely to have been the victim of a catfish, where 37% said they'd been targeted by an online fraudster, with those in the U.S (32%) not far behind.

Have you been catfished?



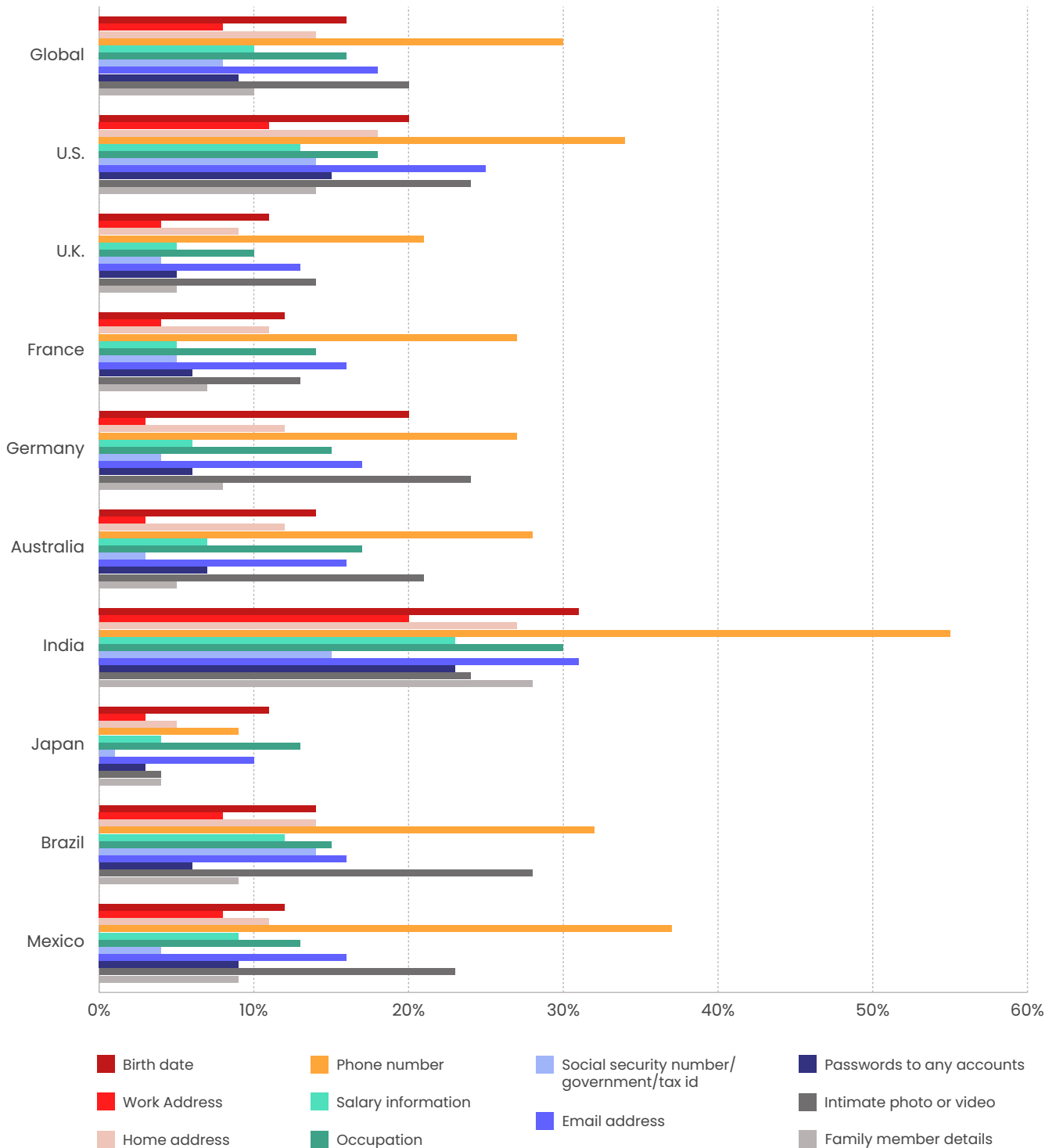
Catfishing can be very difficult to spot, especially with new AI tools such as ChatGPT which can help cybercriminals scale their communications and target more people, but there are a number of ways people are usually alerted to the fact that somebody is not who they say they are.

Most common (39%) was the person's reluctance to meet in person or even have a video call, as this would obviously give the game away immediately, while 27% said the alarm was raised when they wouldn't even talk on the phone. Searching for the person's pictures online is also a good way to find out if they're legitimate or not, with 32% saying they discovered the truth after seeing the same pictures being used elsewhere.

What people say can also give them away as scammers, particularly if they ask for personally identifiable information, such as your place of birth or passport details, with 29% of people saying this was what alerted them to the scam. Poor spelling and grammar can also be a red flag (26%).

Meanwhile, 55% of all adults surveyed have been asked to transfer cash and, in 20% of those cases, the amount asked for was more than \$10,000, which just goes to show the types of fraud that are increasingly more common on social media.

Personal information adults have been asked to share online



Advice from dating coach Hayley Quinn for online dating

“Valentine’s Day is a time to celebrate all things love; whether it’s a first date, a great friend, or a new match online. Dating apps are a proven, fun and accessible way to meet great matches, but unfortunately, this time of year is also when online romance scams tend to peak.



“The financial impact of these scams can be terrible, but beyond that, it’s the emotional impact of feeling connected to someone who’s only motive was to use you for money or information. This research highlights the importance of knowing the risks so you can protect your privacy and identity, while feeling confident and excited about meeting new people.”



How to protect yourself



Top tips to stay safe when online dating



How to protect yourself

Top tips to stay safe when online dating

- **Avoid being fooled by AI-generated text by being on high alert** and scrutinizing any texts, emails, or direct messages you receive from strangers. There are a few tell-tale signs of an AI-written message. For example, at least for now, AI often uses short sentences and reuses the same words. Additionally, AI may create content that says a lot without saying much at all. Because AI is programmed to not form opinions, their messages may sound substance-less.
- **Use privacy and identity protection technology.** Security software can help protect you from clicking on malicious links that a scammer may send you online, while also steering you clear of other threats like viruses, ransomware, and phishing attacks in general. It can look out for your personal information as well, by protecting your privacy and monitoring your email, SSN, bank accounts, credit cards, and other info that a scammer or identity thief may put to use. With identity theft a rather commonplace occurrence today, security software is really a must.
- **Never send money or gifts to someone you haven't met in person**—even if they send you money first.
- **Talk to someone you trust about this new love interest.** It can be easy to miss things that don't add up. So, pay attention to your friends or family when they show signs of concern.
- **Take the relationship slowly.** Ask questions and look for inconsistent answers.
- **Try a reverse-image search of any profile pictures the person uses.** If they're associated with another name or with details that don't match up, it's likely a scam.
- **Have a call/video date with a match in app,** rather than sharing your contact details right away. Most platforms now have the ability for you to call directly through them, which can make the experience of getting to know someone safer.

Survey Methodology

The survey was conducted online between January 27th and February 1st, 2023 by Market Research Company MSI-ACI via email inviting people 18 years and older to complete an online questionnaire. In total 5,109 people completed the survey from 9 countries included the United States, United Kingdom, France, Germany, Australia, India, Japan, Brazil, and Mexico.

About McAfee

McAfee is a global leader in online protection. We're focused on protecting people, not devices. Our solutions adapt to our customers' needs and empower them to confidently experience life online through integrated, easy-to-use solutions.



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