

# DEEPPFAKE AND VOICE CLONE CONSUMER SENTIMENT REPORT

OCTOBER 2023



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## METHODOLOGY

The survey was conducted online during July of 2023 and was completed by 2,027 U.S. adults age 18 or older that were representative of U.S. Census demographic averages. Because we reached only online adults which represent 95% of the population, some totals are adjusted downward to provide usage numbers relevant to the entire adult population.



Voicebot produces the leading online publication, newsletter and podcast focused on the conversational AI and generative AI industries. Thousands of industry leaders, engineers, entrepreneurs, software developers, investors, analysts and company founders look to Voicebot each week for the latest news, data, analysis and insights defining the trajectory of the next great AI computing platforms.

## Synthedia

Synthedia is the leading provider of analysis, data, trends, news, and advisory services focused on the rapidly growing generative AI and synthetic media markets. Through a daily email newsletter, weekly news live stream, conferences, reports, community, and strategy consulting, Synthedia helps business leaders navigate the most disruptive technology shift in two decades.



Pindrop was built to silence fraudsters. AI fraud is on the rise, making cutting-edge fraud detection software your key to stopping deepfake attacks. Pindrop is dedicated to continuously innovating solutions to detect and mitigate the risks posed by synthetic audio—fortifying trust and integrity between you and your customers.

## A Letter From Pindrop



Each new technology arrives with applications for good and for bad. While many fans of Star Wars, America's Got Talent, online games, and countless humorous YouTube videos have enjoyed the emergence of voice clones and deepfakes, there is also a rising use of these technologies in fraud, disinformation, and harm to personal reputations. The technologies are so good, and we are inundated with so much digital media that people now struggle to differentiate the real from the fake. A Pindrop study showed that **people can identify a deepfake with just 57% accuracy**. That is only 7% better than a coin toss.

The solution is not to stop the technology and throw out the good in order to eliminate the bad. The solution is to create tools that can detect deepfakes and voice clones, and protect users from the risks of misuse.

Pindrop Security was founded on using AI technology to reduce risk by distinguishing reality from the illusory. Initially, it was humans employing a

combination of social engineering and technology in attempts to access someone's bank account, medical history, or other private information. Today, it is the same, but voice clones and deepfakes are the latest tools in the fraud technology arms race.

**Pindrop is taking action and providing detection tools to protect companies and individuals from harm.** In fact, we have been working on this problem for a decade and have 11 deepfake detection patents, many of which have been converted into products.

We collaborated with Voicebot.ai to shed light on consumer experience and perception around deepfake and voice clone technology. I suspect you will find that deepfake awareness by over half of U.S. adults is higher than expected. Voice clone awareness is even higher at 64%. The proliferation of the technology has moved quickly, and consumers are rightly concerned. Thankfully, there are solutions for companies that want to proactively protect their customers.

**Vijay Balasubramanian, CEO and co-founder of Pindrop**

# The Rise of Deepfakes

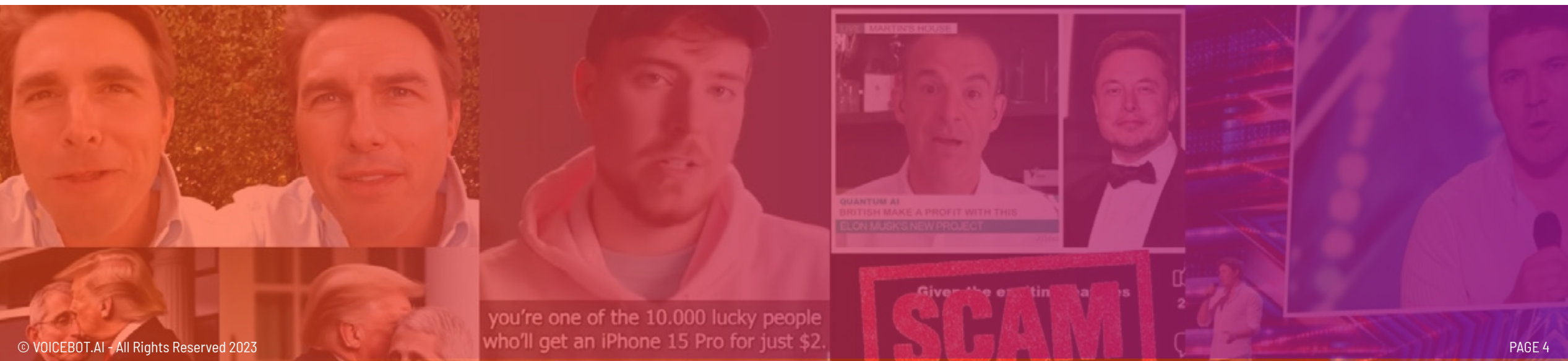
Deepfakes are one of the most controversial solutions arising from the advancement of AI technology. The technology is used by Hollywood to de-age actors and recreate actors' likenesses after death, by comedians in social media, by advertisers, by gamers, and among friends for fun and entertainment purposes. However, it is also employed by criminals as a tool to commit fraud, by disgruntled people looking to harm someone's reputation, and by nation states and political actors to spread disinformation.

Whether you view deepfake technology as net positive or net negative, its unreality is a reality of our time. Voicebot.ai and Synthedia have published over 100 articles on deepfake technology since 2019. Most of those in the past year. The technology is on the rise, improving in quality, and becoming more accessible.

## Filling an Information Gap

Most of the news coverage and analysis focuses on the technology and events and little is available about consumer perception and experience with deepfakes. Voicebot partnered with Pindrop Security in an effort to fill this information gap about deepfakes overall and for the subcategory of voice clones.

The findings may surprise you. We did not anticipate the level of everyday consumer awareness or the split of positive and negative sentiment, especially in light of the level of concern expressed. Nor did we expect so many consumers to believe that banks, insurance, healthcare, news, and social media organizations have already taken meaningful steps to protect them. This finding suggests that there may be a mismatch between expectations and reality. That sentiment surely seems on topic.



# Deepfakes Exist in Multiple Formats

Voicebot categorizes deepfake technology into four categories: audio, video, text, and images. The core technologies are generally related but distinct. For this report, we focus on the overall deepfake market and the subcategory of voice clones. The various technologies can be applied alone or combined and may be static, recorded, or delivered in real time.

### Definitions

**Deepfakes** are AI-manipulated digital media in text, image, audio, or video formats that replicate something that is real or alter key characteristics of something that is real which may change how the media is interpreted. The word is a portmanteau combining the technical term deep learning with fake.

**Voice Clones** are AI-manipulated audio media that replicate the voice of a specific person. It is a type of synthetic voice and a subcategory of deepfakes.

## Deepfake Technology Categories

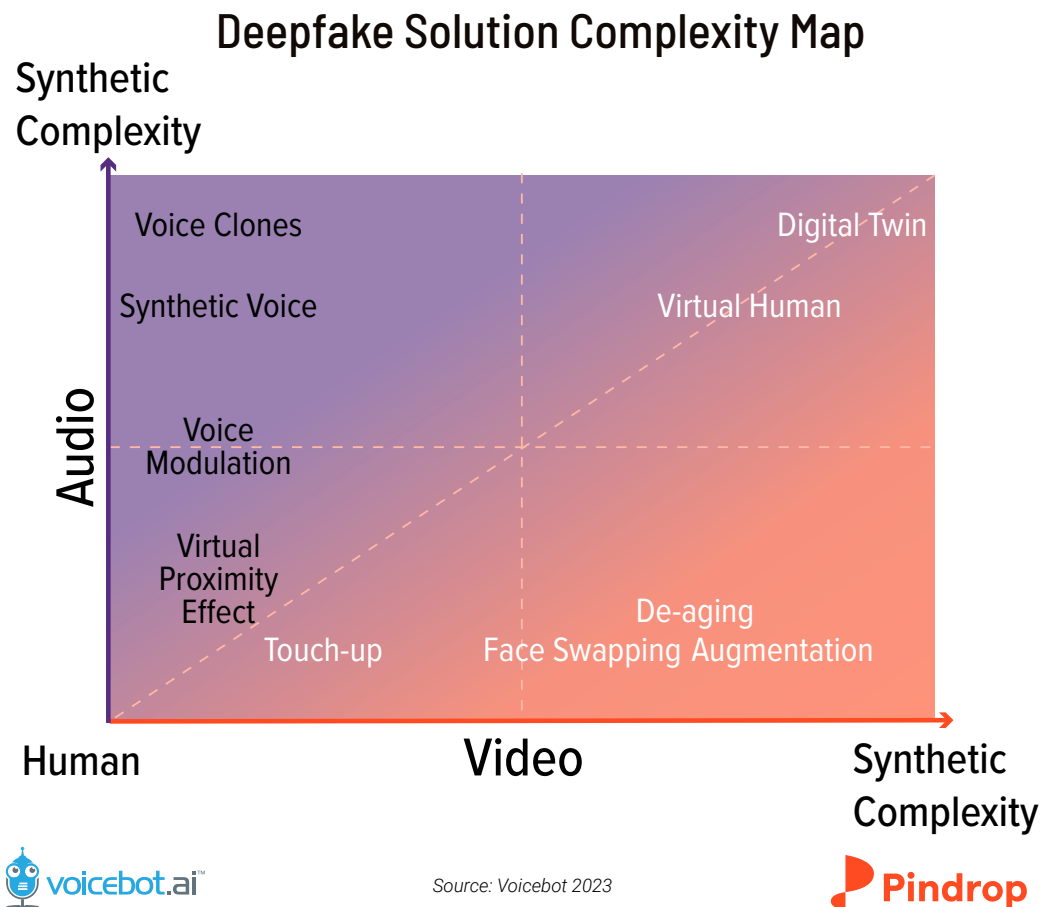
|         |  |   |
|---------|--|---|
| Dynamic | <b>Audio</b>   | <b>Video</b>  |
|         | <ul style="list-style-type: none"> <li>•Voices</li> <li>•Music</li> <li>•Sounds</li> </ul> | <ul style="list-style-type: none"> <li>•People</li> <li>•Objects</li> <li>•Places</li> <li>•Concepts</li> </ul> |
| Static  | <b>Text</b>  | <b>Image</b>  |
|         | <ul style="list-style-type: none"> <li>•Printed</li> <li>•Written</li> </ul>               | <ul style="list-style-type: none"> <li>•People</li> <li>•Objects</li> <li>•Places</li> <li>•Concepts</li> </ul> |
|         | <b>Words &amp; Sounds</b>  | <b>Visuals</b>  |



Source: Voicebot 2023



# There is a Complexity Spectrum of Deepfake Technology



Deepfakes are not represented by a single technology, technique, or modality. Various use cases for replicating human likeness and biometric features involve different levels of technical complexity. In general, the more technical complexity, the lower availability in the market. However, there are exceptions. Inexpensive (or free) and relatively high quality voice clones are available to just about anyone today, as are synthetic voices.

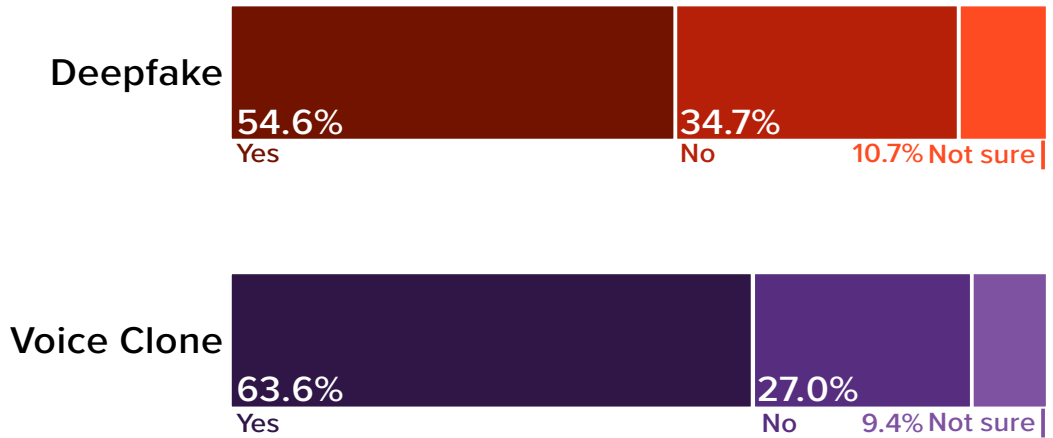
Another factor to consider is whether the deepfake is applied to recorded media (static or dynamic) or real time communications. The complexity for the latter is higher but it can sometimes be more effective because the other party doesn't have time to contemplate and review the situation. They react to the exchange and may not pick up on the subtle differences between real and fake. They may even think indicators are a reflection of the internet connection or audio channel.

# Voice Clone Awareness is Higher Than Deepfakes, Concern is Similar

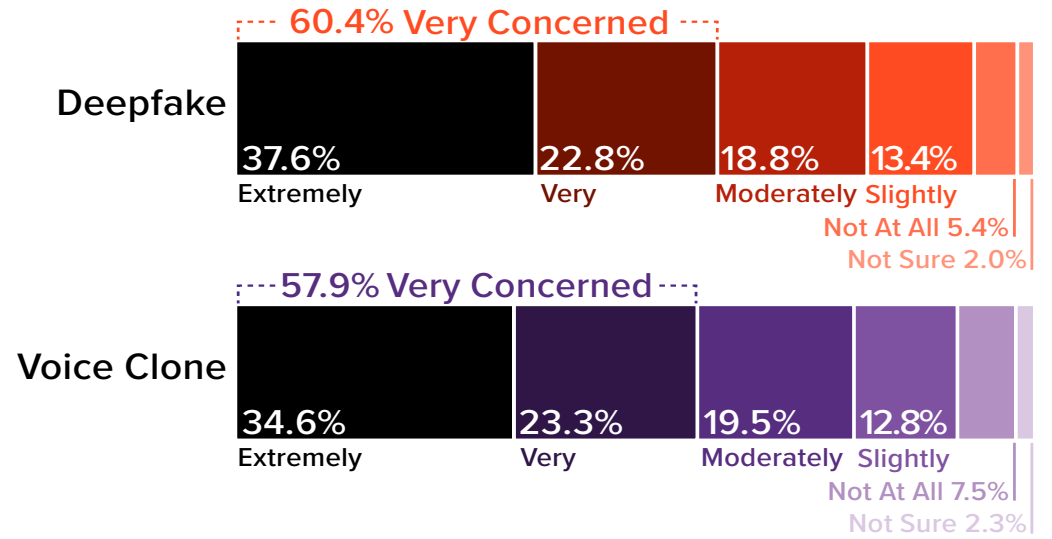
More than half of U.S. adults are aware of deepfakes and voice clones, with the latter registering significantly more recognition. This may not be surprising given that one of the terms is exotic while the other combines easily recognized everyday words.

Consumers that are aware of deepfakes and voice clones express a great deal of concern with about 60% in both categories saying they were either "very" or "extremely" concerned and over 90% expressing some concern.

### Deepfake and Voice Clone Awareness Among Consumers



### Deepfake and Voice Clone Concern Among Consumers



Source: Voicebot 2023



Source: Voicebot 2023



## Banking, Government, and Media Are Top Concerns

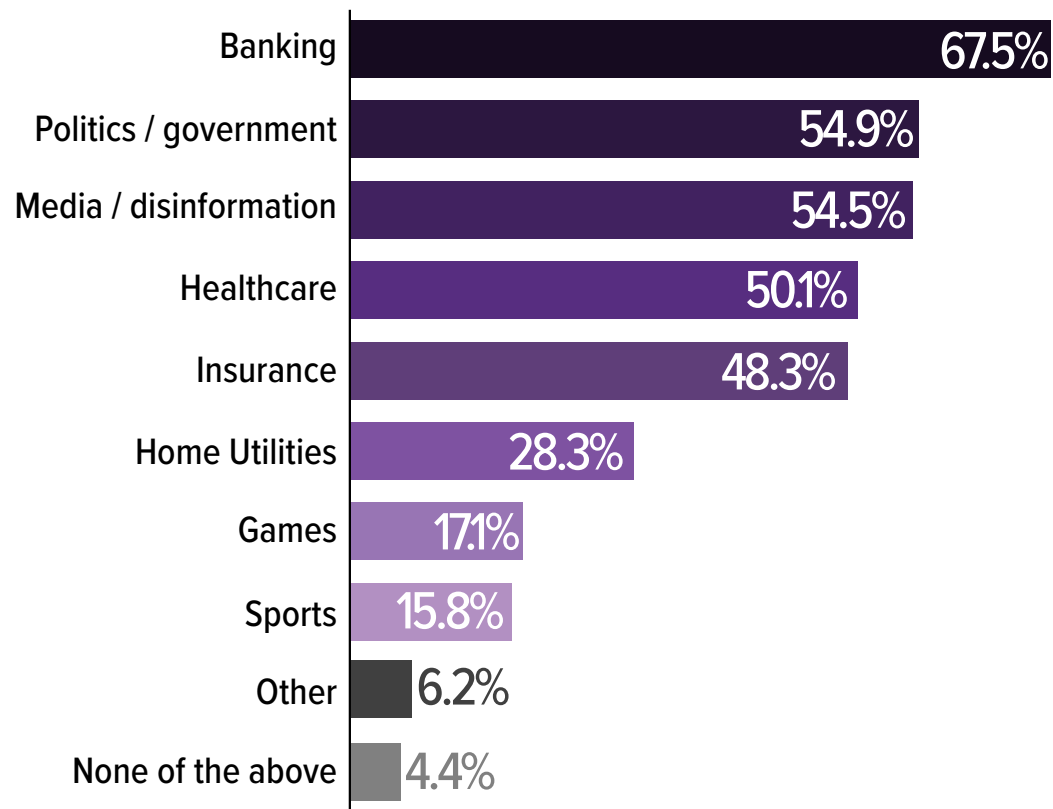
The biggest areas of consumer concern relate to areas where sensitive personal identifiable information (PII) is at risk and where false public information could have negative consequences.

Notably, “Healthcare” and “Insurance” concerns are significantly outpaced by “Banking.” When it comes to deepfakes concerns, the potential for fraud is top of mind and people associate that with money.

Nestled between those staples of PII-heavy consumer services are “Government” and “Media.” Both can be subject to deepfake-laced disinformation and could lead the public to counterproductive actions.

Other areas of concern are far lower with only “Home Utilities” breaking the 20% level. And the 6.2% for “Other” suggests consumer imagination is limited in the scope of threats they may face.

### Domains Where Consumers are Most Concerned About Voice Clones



Source: Voicebot 2023





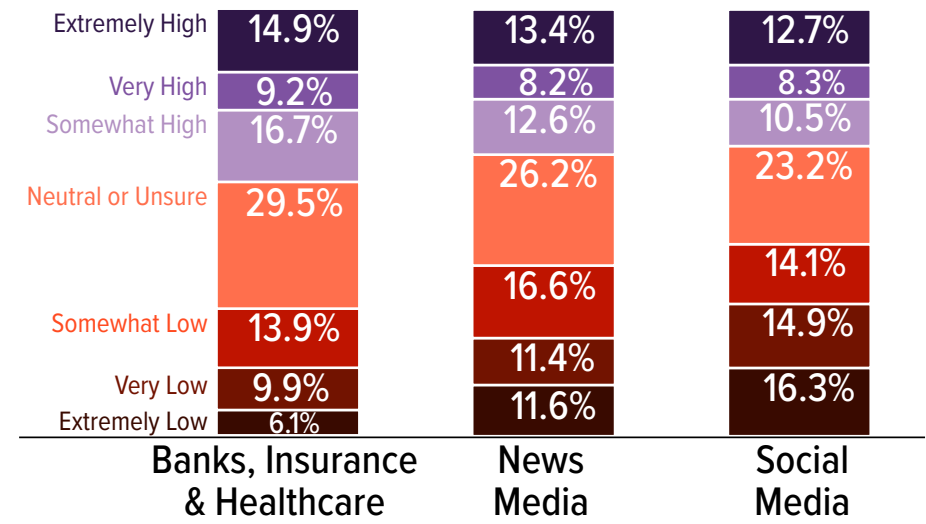
# Many Consumers Think Companies are Deepfake Ready

While consumers express significant concern about deepfakes and voice clones, there is a high degree of uncertainty about the readiness of leading institutions. Around 25% of U.S. consumers say they are “Neutral or Unsure” that businesses are ready for nefarious uses of the technology across key industries.

Consumers are most confident that “Banks, Insurance & Healthcare” have already taken steps to protect them against risks. About 40% expressed at least “Somewhat High” confidence. Given the newness of the technology and very recent emergence of detection solutions, it appears consumer expectations may exceed reality.

The “Low” confidence categories are far higher for “News” and “Social Media.” This is significant as these are channels driving the highest number of encounters.

### Consumer Confidence in Deepfake and Voice Clone Protection for Key At-Risk Industries

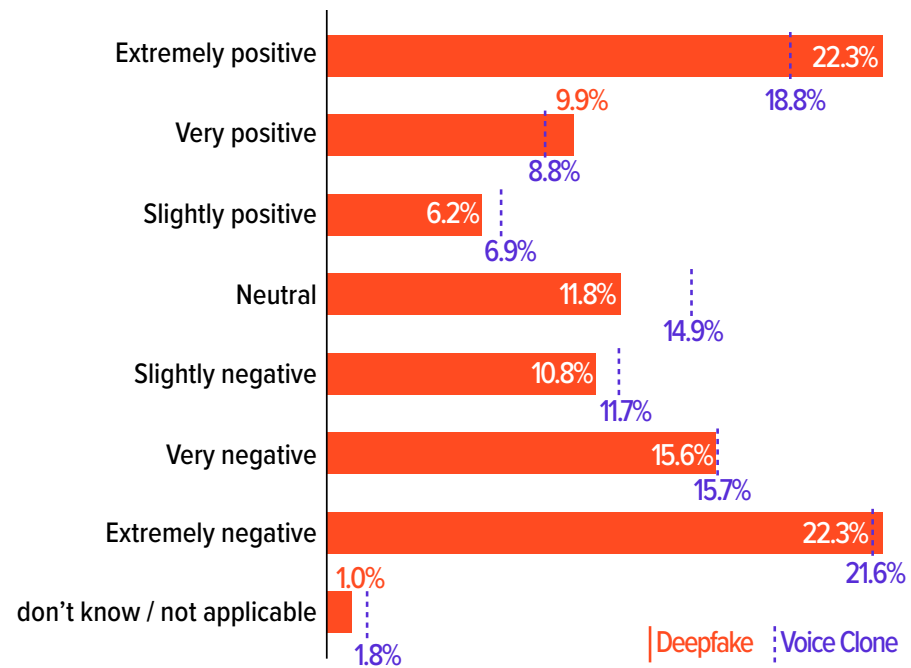


Source: Voicebot 2023



# Sentiment Skews Toward the Extremes

## Deepfake and Voice Clone Sentiment



Source: Voicebot 2023



Most consumer sentiment is driven by the extremes of positive and negative aspects of deepfake and voice clone technologies. In fact, the results look a lot like an inverse normal distribution.

Overall, the unaided positive sentiment for deepfakes was 38.5% to 48.8% negative. The figures were 34.3% positive to 49.1% negative for voice clones. This reflects a measurable negative sentiment bias.

Interestingly, consumers that expressed the highest levels of concern were significantly more likely to express positive sentiment about both technologies. Deepfakes registered 51.7% positive and voice clones showed 45.6% among the “Very” and “Extremely” concerned. It appears that more familiarity may lead to both more positive interest and more concern. These consumers better appreciate the benefits and the risks.



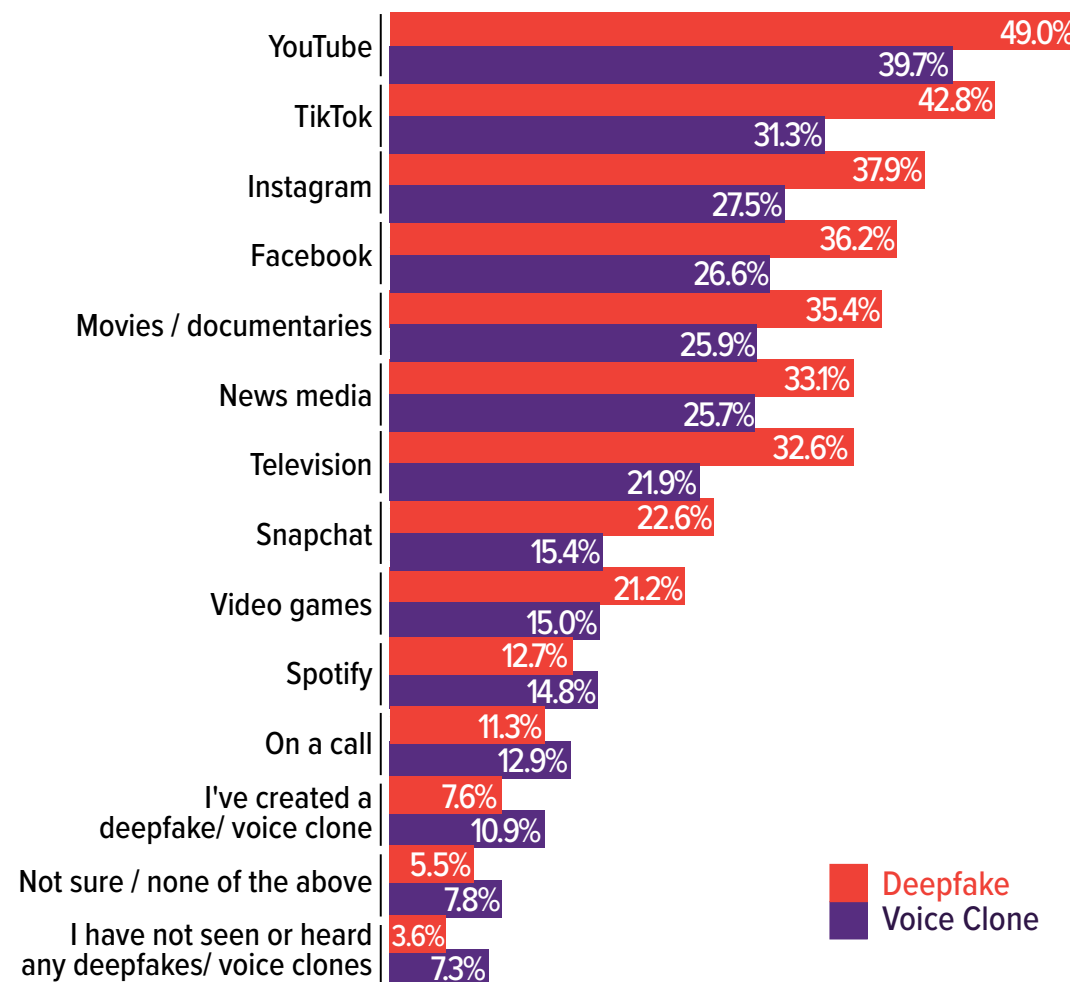
# Social Media Accelerates Deepfake Exposure

Consumers are most likely to encounter deepfakes and voice clones on social media. The top four responses for both categories were YouTube, TikTok, Instagram, and Facebook. You will note the bias toward video on these platforms as YouTube and TikTok encounters were materially higher. Granted all of these platforms have video, but two use the media exclusively.

Movies, the news media, and television followed closely behind Facebook and Instagram. Exposure is broad based. However, deepfakes experience exceeds voice clones for all top media sources which suggests that consumers were more likely to experience deepfakes across multiple channels. It also may reveal that many people know of voice clones but have not personally encountered them.

Consumers were more likely to encounter voice clones on audio channels such as Spotify and phone calls. They were also significantly more likely to have created their own voice clone.

## Deepfake Consumer Encounters by Channel



Source: Voicebot 2023





## A Tale of Two Outcomes

There is a perfect storm of supply and demand for deepfakes and voice clones due to a convergence of rising quality and ease of access combined with mass distribution through social and traditional media. The novelty and practical benefits have led to many positive uses along with consumer interest. At the same time, the enhanced realism is increasingly embraced by bad actors for nefarious purposes.

Deepfakes and voice clones may have introduced the “best of times” for creative pursuits. However, if you are focused on fraud prevention, copyright monitoring, or just want to protect your reputation, are you ready for “the worst of times?” The positive applications will take care of themselves. The real question is how to identify and mitigate the risks posed by negative uses.

Consumer sentiment and experience with deepfakes and voice clones serve as a backdrop for these considerations. What are their expectations? What are their fears? How will they react to organizational action or non-action to the risks? What do they want? Answers to these questions will influence how enterprises approach the risk posed by these technologies and the level of urgency.

The data and conclusions above reflect a small sample of the findings in this report. On the following pages, you will find additional analysis of consumer sentiment and experience broken down by media consumption, age, income, and gender. You will also find a summary of some high-profile positive and negative examples of deepfake and voice clone use.



# Deepfake and Voice Clone Scams, Attack Vectors, and Positive Uses



## The Good, the Bad, and the Ugly of Deepfakes

Deepfakes and voice clones have shown up in good, bad, and downright ugly circumstances. An important reason that the technology awareness is high is that it has appeared in numerous situations over the past two years.

From a positive perspective, major media and social media creators have employed the technology for its entertainment value. Gamers have used it to add more fun to their in-session voice chats and people have employed it to prank friends. Voice clones are also used as prostheses for people that have lost the ability to speak naturally.

However, the negative uses are on the rise. Scams distributed on social media and through phone calls are targeting everyday consumers. Criminals have

used the technology to impersonate a corporate officers and steal millions of dollars from a company bank account. They have stolen thousands by impersonating grandchildren. Someone even used a deepfake to impersonate Ukraine President Volodymyr Zelensky and influence the war. The likeness of political figures, celebrities, and family members have all been used to defraud.

The problem is likely to get worse as the technology's quality and ease of access rise while costs declines. However, it is not an entirely dire situation. Detection tools are emerging and there are a lot of positive use cases proliferating alongside the nefarious. The following pages highlight several recent examples of positive and negative uses of deepfakes and voice clones. You will see that the benefits and risks show up in a variety of forms.

## Deepfake Simon Cowell Wows AGT Fans

### Background

Metaphysic appeared on America's Got Talent (AGT) to highlight its deepfake technology's entertainment value.

### Venue

The solution appeared in three different AGT shows: once with a single singer replicating Cowell, another as a trio including other judges, and a third that brought back an Elvis likeness and voice clone.

### Result

Metaphysic's performance made it to the finals for 2022 and finished the competition as fourth overall.

*"This is the best act, I believe, of the series." Simon Cowell, AGT Creator*



*Deepfake technology company Metaphysic entered the America's Got Talent variety show competition with a replica of show creator and judge Simon Cowell.*

## De-aging Robert De Niro

### Background

The Irishman chronicled the lives of mafia and union figures over four decades and used a combination of deepfake and CGI technology for de-aging Robert De Niro, Al Pacino, Joe Pesci, and other actors.

### Venue

Netflix movie 2019.

### Result

The film received several nominations for best visual effects awards, including for the Academy Awards.

*"De-aging is invaluable when you have three actors trying to cover five decades' worth of time." Angela Watercutter, WIRED*



*Deepfake technology was used in The Irishman to digitally de-age Robert De Niro and other actors to portray them at several different ages.*

## Bringing Andy Warhol to Life

### Background

Pop artist Andy Warhol left behind over 20,000 diary pages. These became the source material for The Andy Warhol Diaries documentary and the director wanted to animate the words with a replica of the artist's voice.

### Venue

The voice clone was used in a six-part Netflix documentary.

### Result

The Andy Warhol Diaries received an Emmy nomination for best television documentary in 2022.

*"When I first heard the AI-created voice, I felt confident it was going to be an incredibly effective way to bring Warhol's diaries to life and humanize the enigmatic artist." Michael Dayton Hermann , The Andy Warhol Foundation*



*A documentary based on the private diaries of Andy Warhol employed a voice clone to represent the artist's thoughts in a 2022 documentary.*

## Voice Clone Fraud Used to Steal \$35 Million

### The Scam

A Hong Kong branch manager received a call from someone impersonating the Japanese company's director using a voice clone. He was asked to authorize a bank transfer for an acquisition. The manager believed it was legitimate because he recognized the voice and it matched a request in hacked email correspondence.

### Distribution Vector

Voice clone used in a phone call and confirmed by emails.

### Impact

Stolen funds, totaling \$35 million, were traced to at least 17 individuals, and sent to bank accounts worldwide.

*"Audio and visual deep fakes [...pose] a huge threat to data, money and businesses." Jake Moore ESET*



*A voice clone of a company director was employed to convince a branch manager to authorize the transfer of \$35 million for an "acquisition" that was actually a scam.*

## Deepfake Fraud Imitating a Consumer Advocate

### The Scam

A video featuring a deepfake of Martin Lewis, the well known UK consumer advocate, discussing an investment in 'Quantum AI,' falsely linked to Elon Musk. The video's realism made it convincing to viewers.

### Distribution Vector

The video initially appeared on Facebook and was reported on Instagram and Twitter.

### Impact

Lewis criticized the lack of social media platforms safeguards that allow deepfake scams to thrive. Total losses from the scam are unknown.

*"This is a deepfake...we're not quite sure of the exact tech... We are in a dangerous dystopian future, and nothing is being done to protect people."*



*A deepfake of Martin Lewis, a trusted consumer advocate in the UK, was used in a video shared on social media to promote a fake app and investment opportunity supposedly associated with Elon Musk.*

# Deepfake Fraud Imitating a Popular YouTube Creator

## The Scam

A deepfake ad featuring a digital twin of MrBeast asked viewers to click a link and sign up for a \$2 iPhone 15 Pro giveaway.

## Distribution Vector

The deepfake ad was initially identified on social media platforms, including Facebook, Instagram, and Twitter.

## Impact

It is unclear how many people fell for the scam. The incident prompted discussions about deepfake risks.

*"This highlights the urgent need for robust measures against deceptive deepfake content. We're navigating uncharted territory, and platforms must prioritize protective mechanisms to counter the risks." MrBeast*



*A deepfake of popular Youtuber MrBeast (Jimmy Donaldson) was used in a video shared on social media inducing followers to sign up for a fraudulent iPhone giveaway.*

## Voice Clone Fraud Imitating a Grandchild

### The Scam

A call is made by an impersonator using a voice clone of a grandchild that claims to be in trouble and in need of money quickly for bail, to pay a lawyer, or to pay-off kidnappers. Cash is then typically exchanged.

### Distribution Vector

Phone call.

### Impact

A recent series of incidents in Canada led to more than \$40,000 in losses by duped grandparents in one area and over \$200,000 in another.

*"You'd do anything for your grandchildren. And they took advantage of that." Grandmother duped in scam." as reported by CBC*



*Voice clones are used to imitate a loved one or friend on a phone call and ask for money to get them out of jail, pay for a tow truck, or save them from a kidnapper.*

## Deepfake Disinformation Attempts to Influence a War

### The Disinformation

A relatively low-quality deepfake of Ukraine president Volodymyr Zelensky sought to sow disinformation by making the military believe that the country had surrendered to Russia.

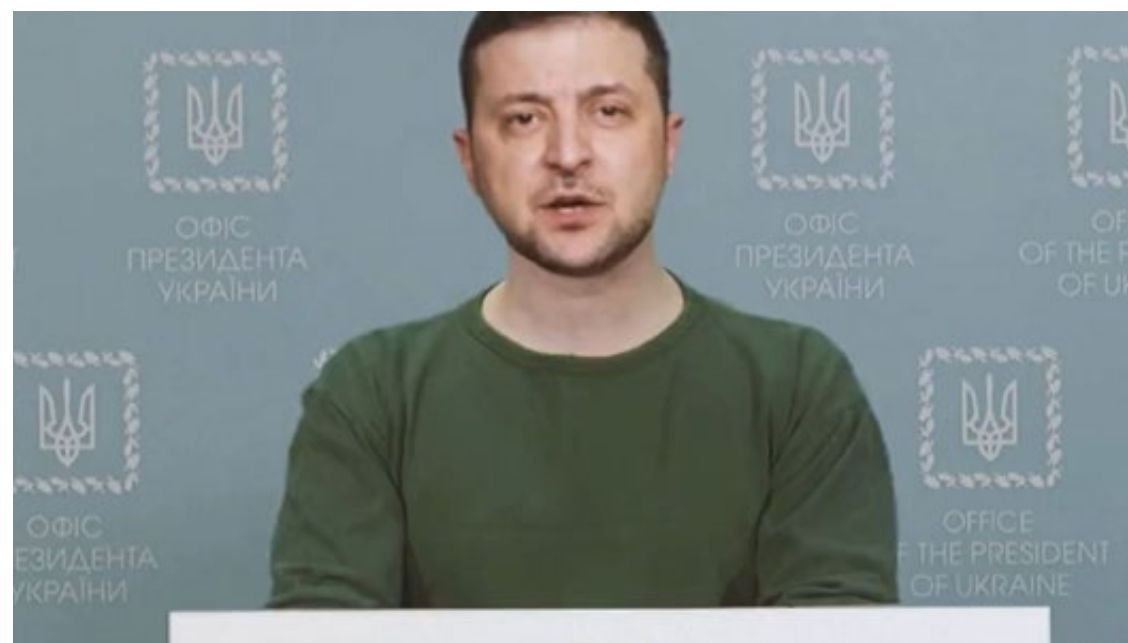
### Distribution Vector

Hackers published it on a Ukrainian news website and social media. It also appeared in a Ukrainian TV news broadcast.

### Impact

The deepfake was quickly identified and removed.

*"It pollutes the information ecosystem, and it casts a shadow on all content, which is already dealing with the complex fog of war." Hany Farid, UC Berkeley*



*A deepfake of Volodymyr Zelensky portrayed the Ukraine President as instructing the military and citizens to lay down their arms in the conflict with Russia.*

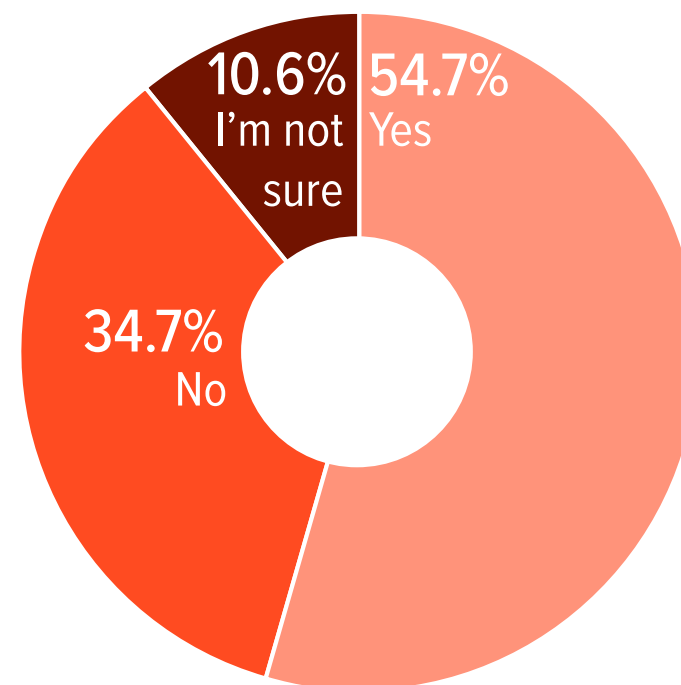


# Deepfake Consumer Awareness & Sentiment

## Deepfake is No Longer an Obscure Technical Term

- Over half of U.S. adults report awareness of deepfake technology, with just over one-third saying they have not heard of it and another 10.6% unsure.
- This awareness is not necessarily grounded in a common definition or common sentiment, as you will see in this report. However, it does suggest that what was just recently an obscure AI technology has quietly gained at least surface-level awareness among consumers.
- The emergent nature of consumer exposure to deepfakes, combined with socio-economic and gender differences, has also led to divergent views on the merits of the technology.

### Deepfake Awareness Among Consumers

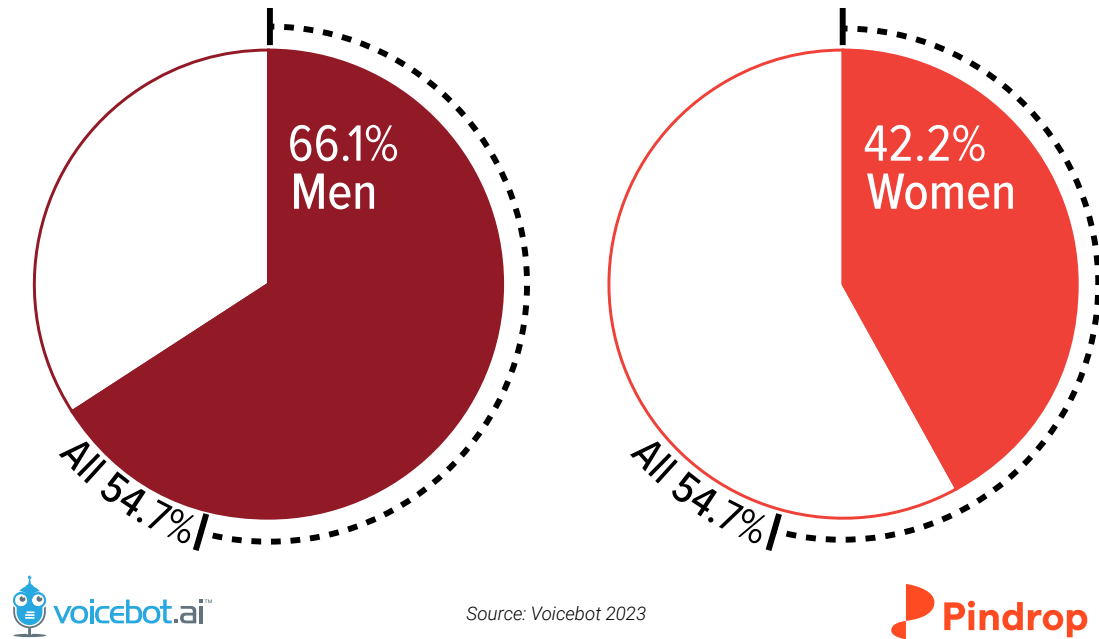


Source: Voicebot 2023



# Men Report Higher Deepfake Awareness

## Deepfake Awareness by Gender

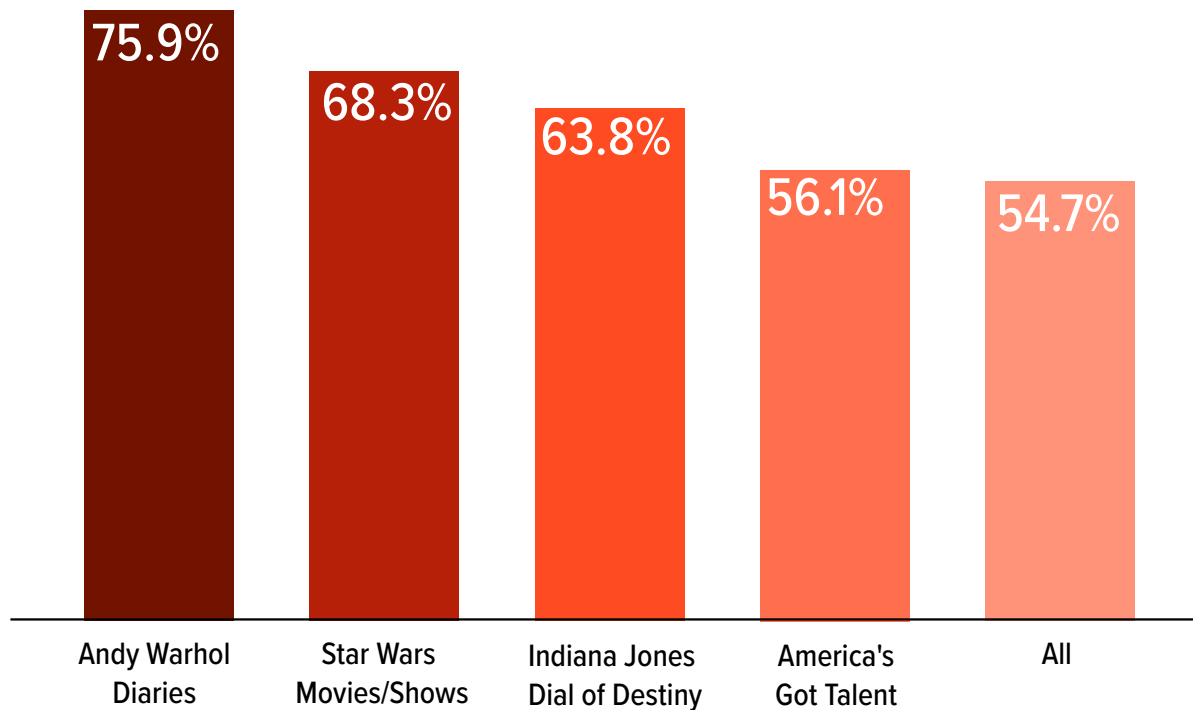


- Men report awareness of deepfake technology at far higher rate than women. Over 66% of men said they were familiar with deepfakes compared to only 42% of women.
- Men are more concerned than women about deepfakes. They are also 50% more likely to have created a deepfake than women, though both figures are less than 10% of the group that knows of deepfakes and less than 4% of the total U.S. adult population.
- Beyond awareness and deepfake creation, men were more likely to have encountered a deepfake on YouTube (52.4% to 46.7%), while women had the edge over men in Tiktok (43.1% to 38.4%). The other media channels were within the margin of error for the group differences.



## Deepfakes in Entertainment Drive Awareness

### Deepfake Awareness Among Select Media Consumers



Source: Voicebot 2023

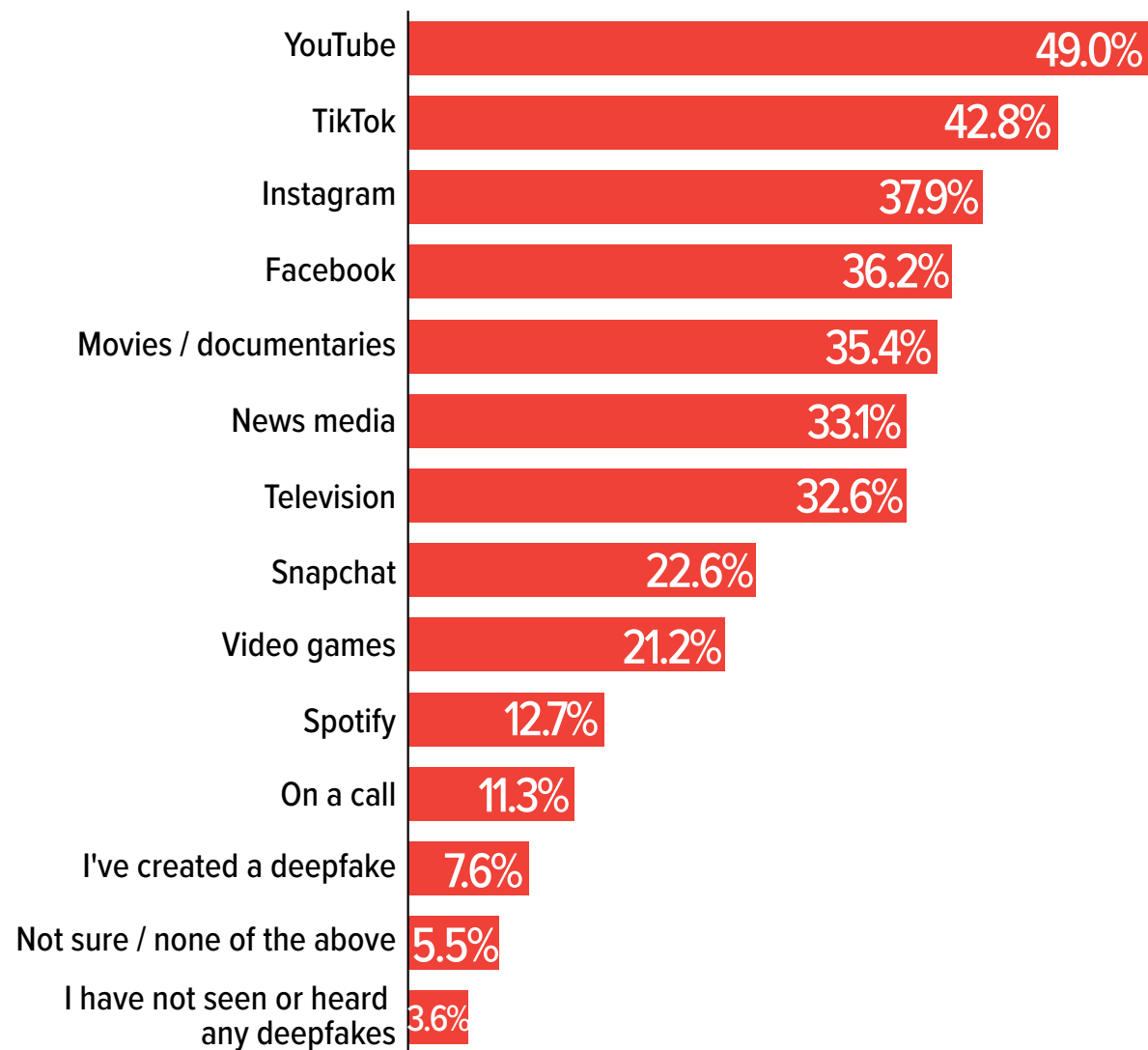


- Deepfake awareness is highest among consumers that have viewed popular media where the technology was featured.
- Three out of four viewers of the “Andy Warhol Diaries” documentary report deepfake awareness compared to just 56% of “America’s Got Talent” viewers and 54.7% overall. The voice clone storyline was inescapable in the Warhol production, while America’s Got Talent (AGT) only featured a deepfake in the 2022 season. Demographic factors may also explain this difference, given the profile of documentary viewers.
- “Star Wars” and “Indiana Jones” have broader appeal than documentaries and also created unavoidable recognition of deepfakes through de-aging and recreating deceased actors.

## Social Media Drives the Most Deepfake Exposure

- The top four channels for deepfake exposure are social media platforms: YouTube, TikTok, Instagram, and Facebook, with 49.0%, 42.8%, 37.9%, and 36.2% reported encounters, respectively.
- These are followed by three mass media channels: movies/documentaries (35.4%), news media (33.1%), and television (32.6%).
- Despite some high-profile deepfake songs, Spotify was only identified by 12.7% of consumers.
- Surprisingly, over 11% of consumers said they had experienced a deepfake on a call, and nearly 8% have some experience personally creating a deepfake.

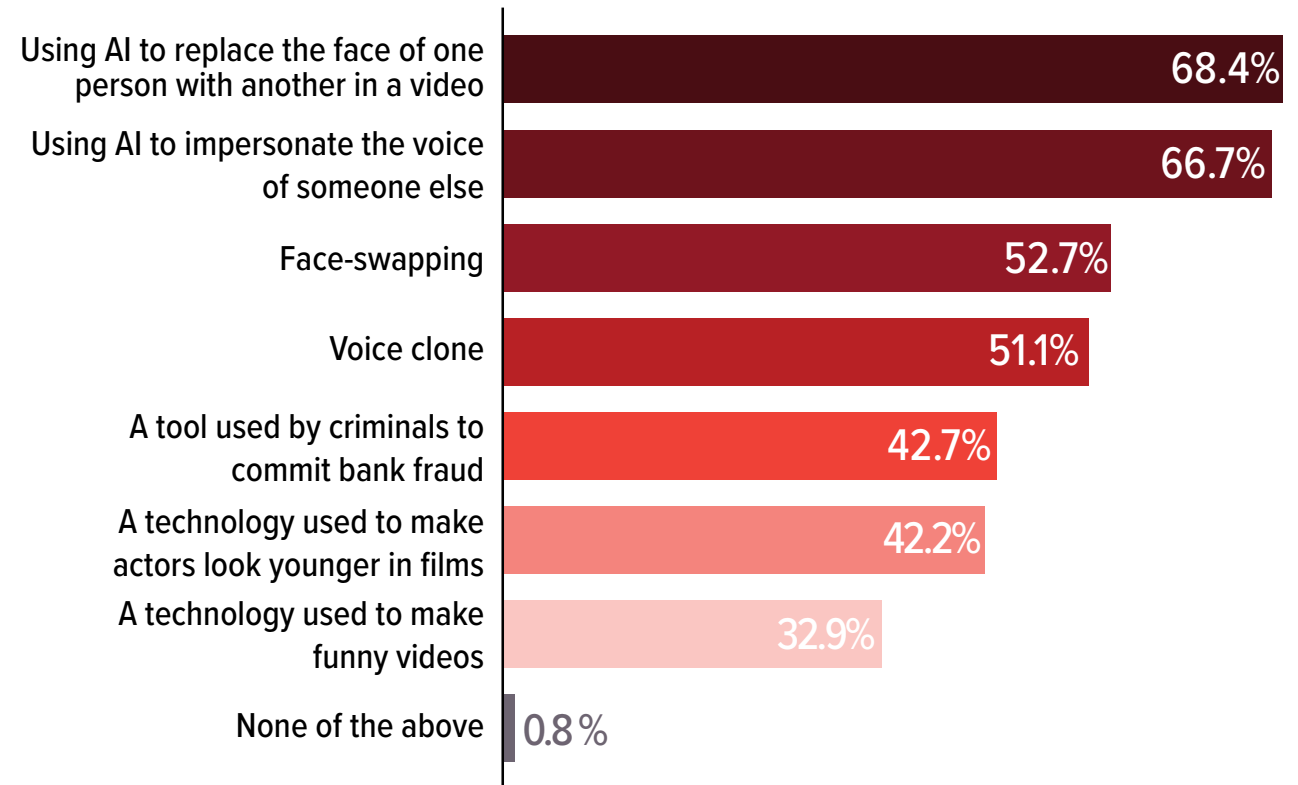
### Deepfake Consumer Encounters by Channel



## How Consumers Define Deepfakes

- While “deepfake” is a term often associated with video, and its origin was strictly related to video, consumers also equate it with voice cloning. About 68.4% think of deepfake as replacing a human’s face with another, and 66.7% believe it involves using AI to impersonate someone’s voice. Over 50% apply the term to both media modes.
- We see similar trends for video and voice with the terms “face-swapping” and “voice clone,” which were reported by 52.7% and 51.1% respectively.
- Nearly 43% indicated that deepfakes are used to commit bank fraud, while a similar percentage knew they are employed to de-age actors in films.

### Consumer Definitions of Deepfake Technology

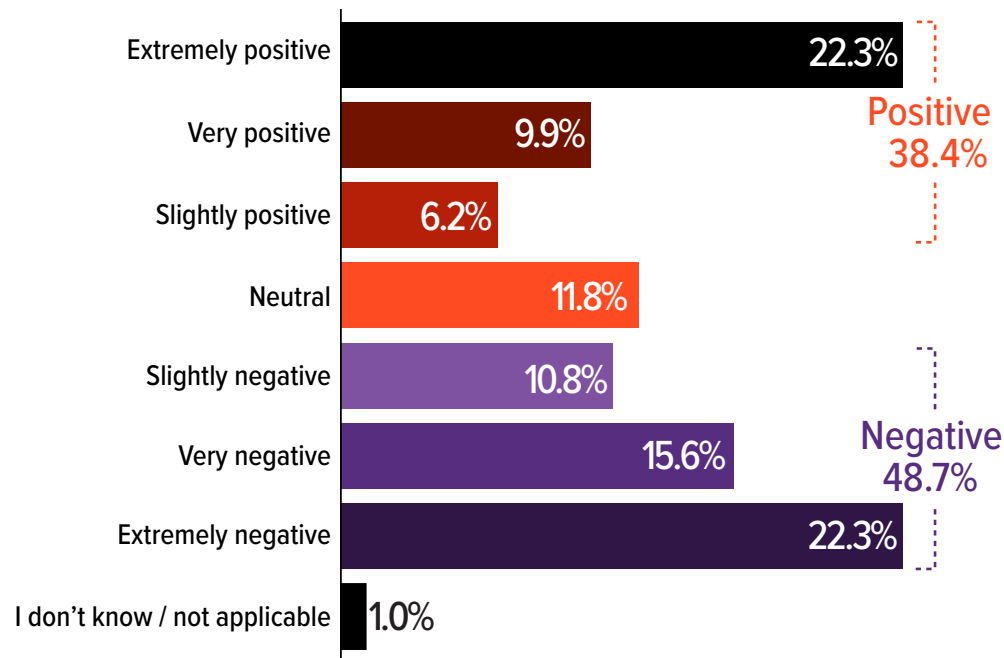


Source: Voicebot 2023



# Deepfake Sentiment Biases Toward the Extremes

Deepfake Sentiment Among Consumers

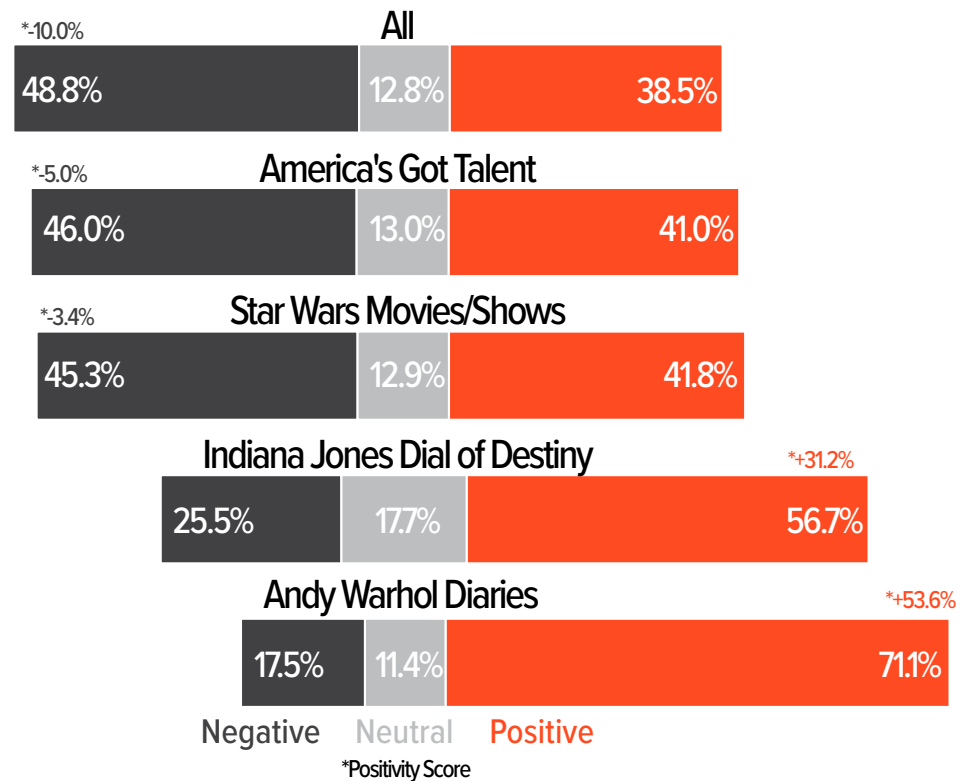


- Consumer sentiment towards deepfake skews negative, but the extremes for positive and negative associations are identical: 22.3% of consumers are extremely positive about deepfakes while another 22.3% are extremely negative, indicating that deepfakes are a polarizing topic.
- Overall, positive sentiment lags behind negative sentiment by over 10%, with 38.4% having at least slightly positive feelings about the technology compared to 48.7% that are negative. The gap narrows slightly to 5.7% when focusing solely on “very” and “extremely” responses.
- With only 11.8% claiming neutrality and polarization at the extremes, deepfakes are poised to become a contentious topic.

# Deepfakes in Entertainment Raises Positive Sentiment

- The polarization of deepfake sentiment varies across consumers that have watched different types of media. Documentary viewers of The Andy Warhol Diaries show a deepfake positive sentiment totalling 71.1%, followed by the most recent Indiana Jones movies at 56.7%. This suggests that viewers of those media saw tangible value in the technology.
- By contrast, AGT and Star Wars viewers were only slightly more positive than the general population. It appears that exposure to deepfakes in media has an effect on sentiment, but it can range from negligible to extreme.

## Deepfake Sentiment Among Media Consumers



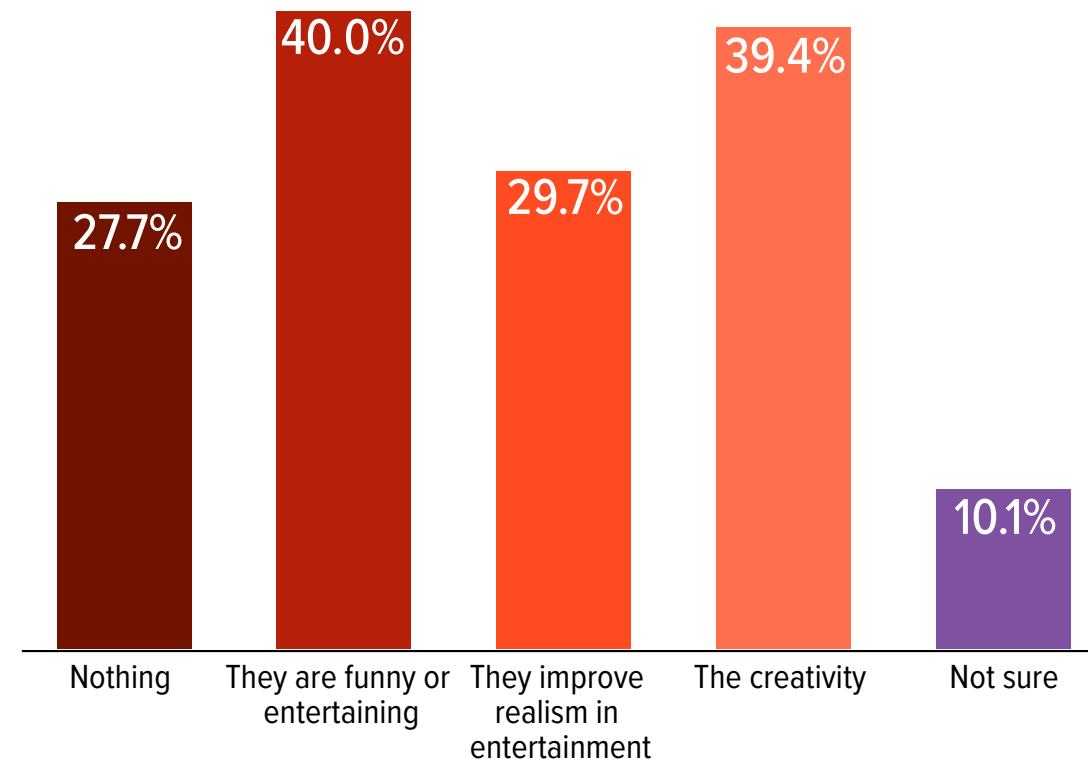
Source: Voicebot 2023



## What Consumers Like About Deepfakes

- Just over one-quarter of consumers find that deepfakes have no redeeming qualities, while over 60% were able to identify features they liked about the technology.
- Consumers most often cited positive deepfake traits in terms of what they enable beyond existing technologies or their pure entertainment value.
- Only 29.7% of U.S. adults appreciated deepfakes for improving realism in entertainment. Interestingly, despite being a technology based on fakery, there are alternative methods for creating realism. The citation for “creativity” at 39.4% suggests that the unique attributes of deepfakes and the new options they provide are stronger drivers of interest.

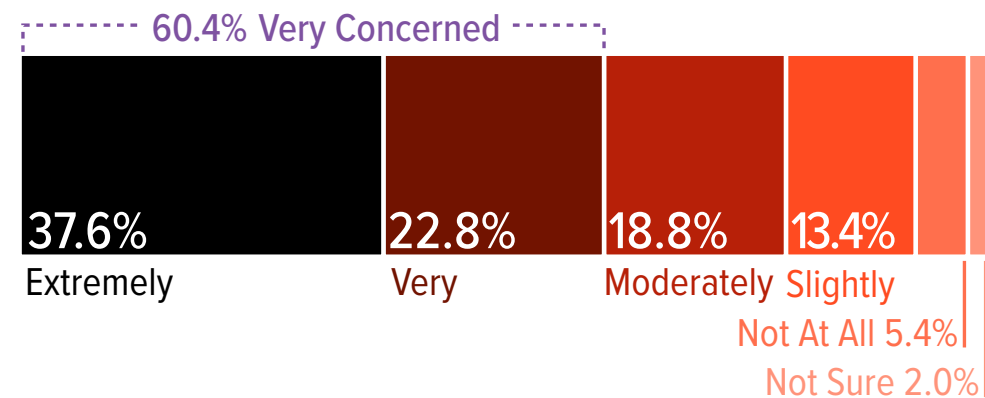
### What Consumers Like About Deepfakes



# Deepfake Concern is High Among Consumers

- Consumers often express concern about online privacy while using social media and other apps that seemingly undermine those concerns. This paradox also seems to apply to deepfakes. Consumers can like a technology while still being concerned about its risks.
- Over 90% of consumers have at least some concern about deepfakes, with 80% being at least moderately concerned. A total of 60.4% are extremely or very concerned. Yet, nearly 40% express positive sentiment toward the technology. This suggests that many consumers see benefits and likely presume the risks can be managed.

Deepfake Concern Level Among Consumers

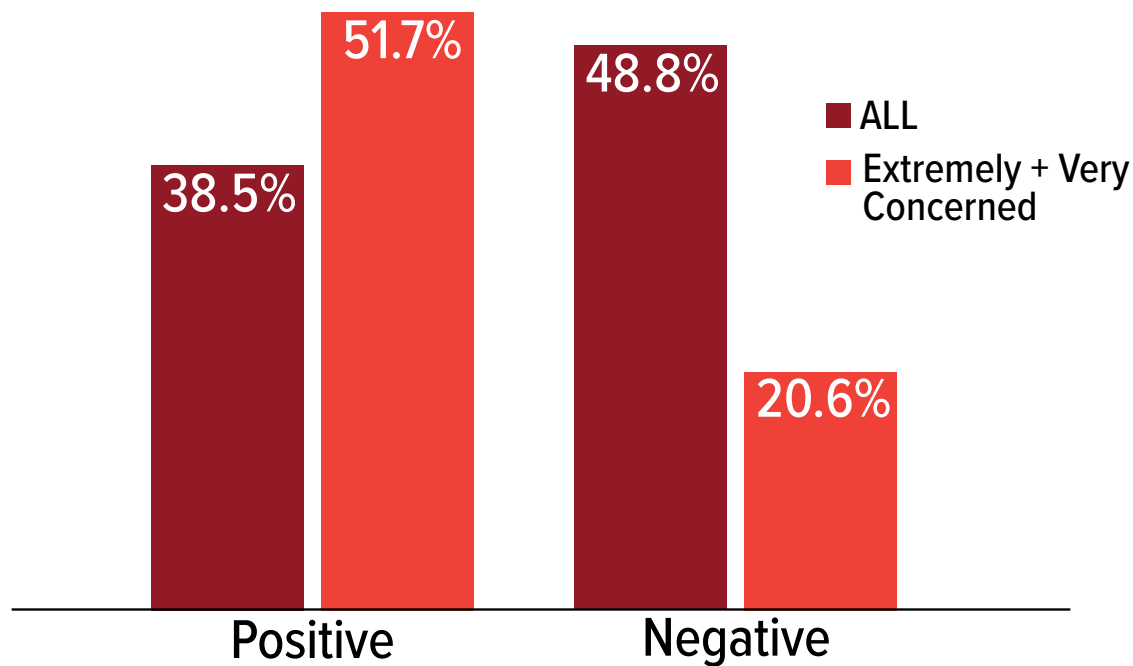


Source: Voicebot 2023



## The Most Concerned are Also the Most Positive

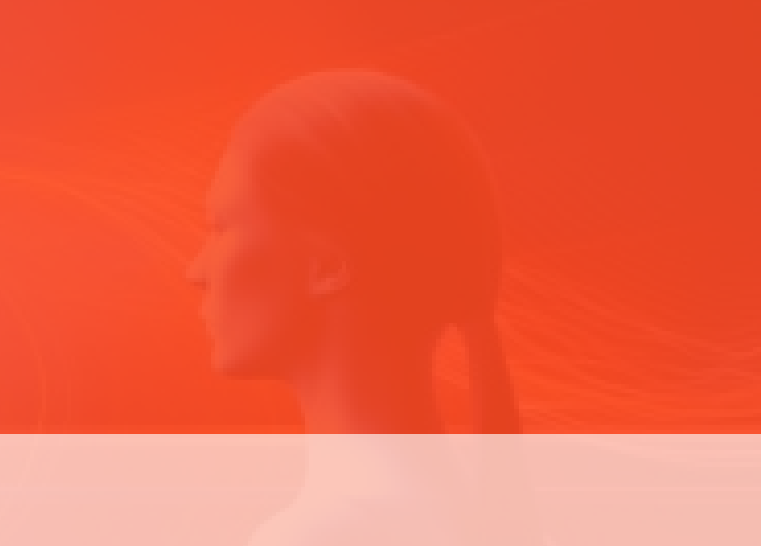
Deepfake Sentiment Among Consumers with High Concern About Personal Risks



Source: Voicebot 2023



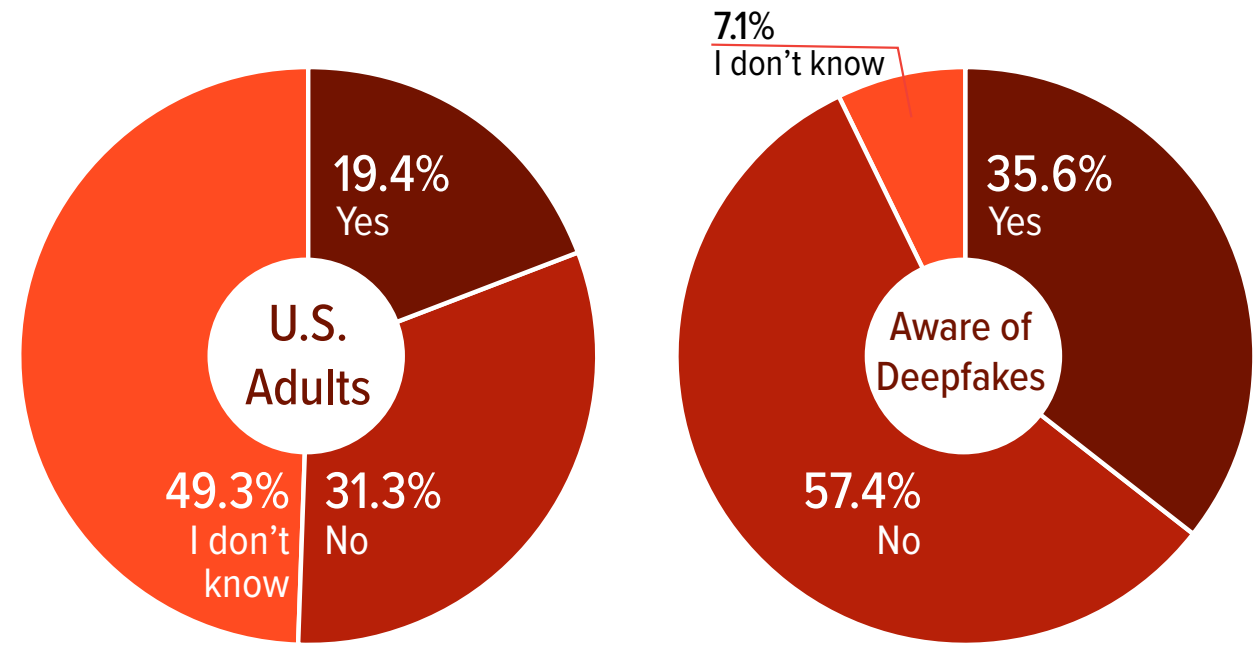
- Surface-level consumer dissonance between concern and interest also shows up in the sentiment data. Consumers who said they were extremely or very concerned about deepfake technology impacting them personally also had positive sentiment at a far higher rate than average. Similarly, the negative sentiment was much lower.
- How do we explain this? It appears that greater interest in the technology also leads to higher perceived benefits and concerns. The most concerned consumers also cited benefits such as improved realism in movies and entertainment value of the technology at a higher rate than the general population.



## Personal Connection to Deepfakes are Significant

- Over one-third of U.S. adults familiar with deepfakes report knowing someone who has had a deepfake made about them. As expected, this figure exceeds that for voice clones (31%), as “deepfake” is a broader category. Importantly, those reporting deepfakes of someone they know may be referring to voice clones, video manipulation, or other techniques. From a total population standpoint, just under 20% say they know someone with a deepfake. Approximately half of the population is unsure if an acquaintance has had a deepfake created about them.

Consumers That Know Someone Who Has Had a Deepfake Made of Them



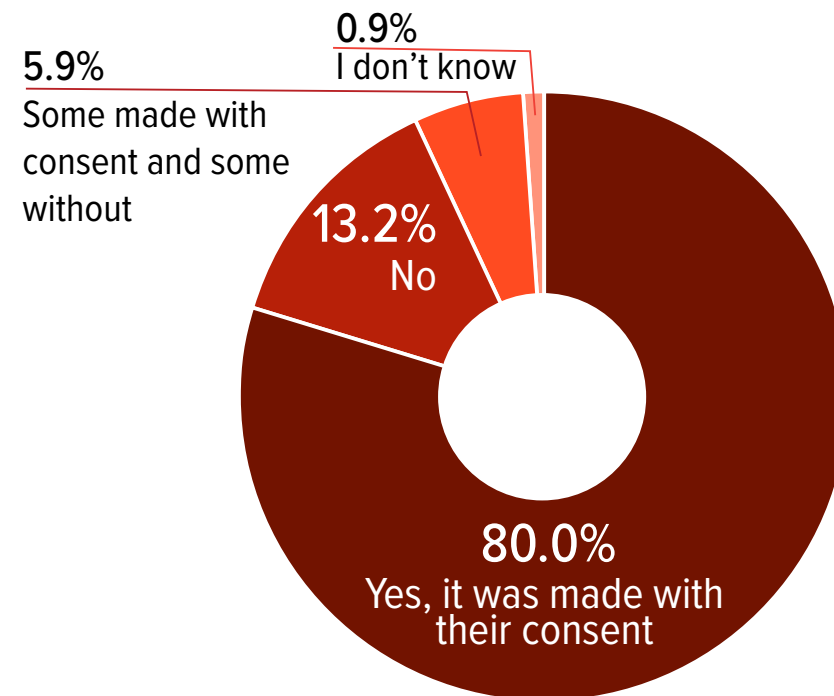
Source: Voicebot 2023



## Deepfakes Made without Consent is Significant

- While concern about using deepfakes for fraud or other personal harm is high, four out of five people who know someone with a deepfake made said it was done with their consent.
- By contrast, 13.2% said the deepfake was made without their acquaintance’s consent, and another 5.9% know people with multiple deepfakes, some with and some without consent. That means about 19% of U.S. adults familiar with deepfakes know someone that has had a deepfake made without their consent. When considered against the total population the non-consent figure is 3.7%, representing over 12 million U.S. adults that know someone that faced this problem.

Percent of Deepfakes Consumers Say Were Made with Person’s Consent



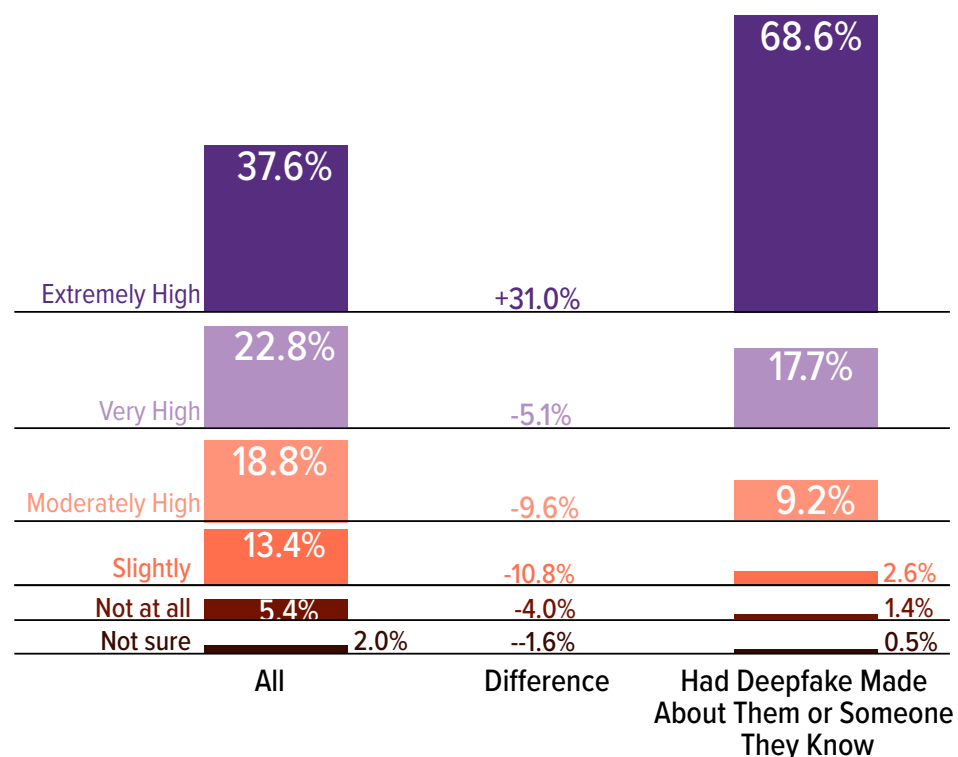
Source: Voicebot 2023



## What Consumers Like About Deepfakes

- A personal connection to someone with a deepfake correlates with a higher level of concern about the technology. While 60.4% of all U.S. adults aware of deepfakes report extreme or high concern about negative impact, that figure rises to 86.3% if they know someone with a deepfake made about them.
- However, a personal connection to someone with a deepfake results in more positive sentiment about deepfakes compared to the general population. This is true whether the deepfake was made with or without consent. Greater awareness seems to translate into more positive sentiment.

### Deepfake Concern Level for Consumers That Know Someone That Has a Deepfake

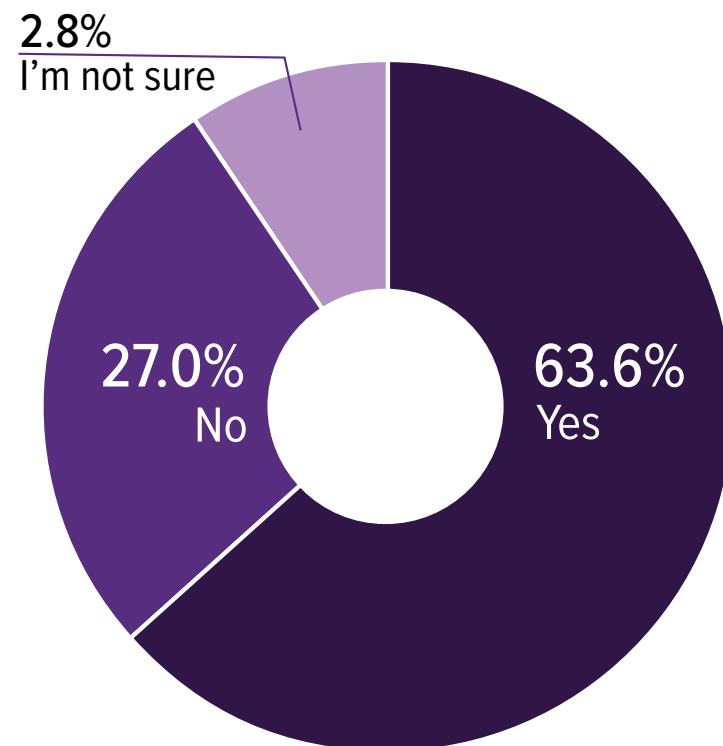




# Voice Clone Consumer Awareness & Sentiment

## Most Consumers Are Aware of Voice Clones

### Voice Clone Awareness Among Consumers

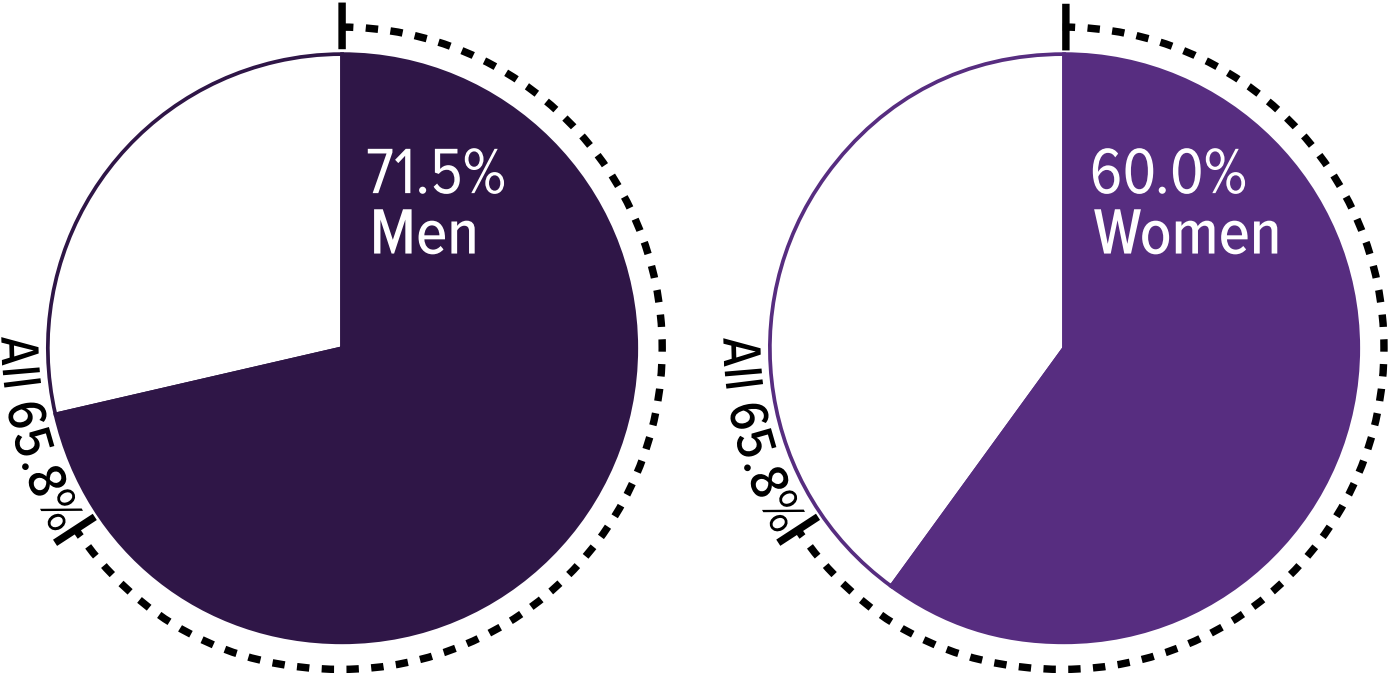


- Nearly two-thirds of U.S. adults say they are aware of the term “voice clones,” which is nearly percentage points higher than for the term “deepfake.” A slightly higher number claimed awareness but could not provide accurate definitions.
- However, consumers disagree on what constitutes a voice clone, and some people choosing incorrect definitions were excluded from the data in related responses.
- Nevertheless, the term is widely recognized due to its presence in social media, traditional media, games, and even in phone calls.

# Men Report Higher Voice Clone Awareness

- Similar to the term “deepfake,” men report higher awareness of voice clone technology than women. Over 71% of men reported familiarity with voice clones, compared to 60% of women.
- Men are also more concerned than women about deepfakes and are 50% more likely to have created one, though both figures are under 10% among those aware of deepfakes and under 4% of the total U.S. adult population.
- Beyond awareness and deepfake creation, men were more likely to have encountered a deepfake on YouTube (52.4% to 46.7%), while women had the edge over men in Tiktok (43.1% to 38.4%). The other media channels were within the margin of error for the group differences.

Voice Clone Awareness by Gender



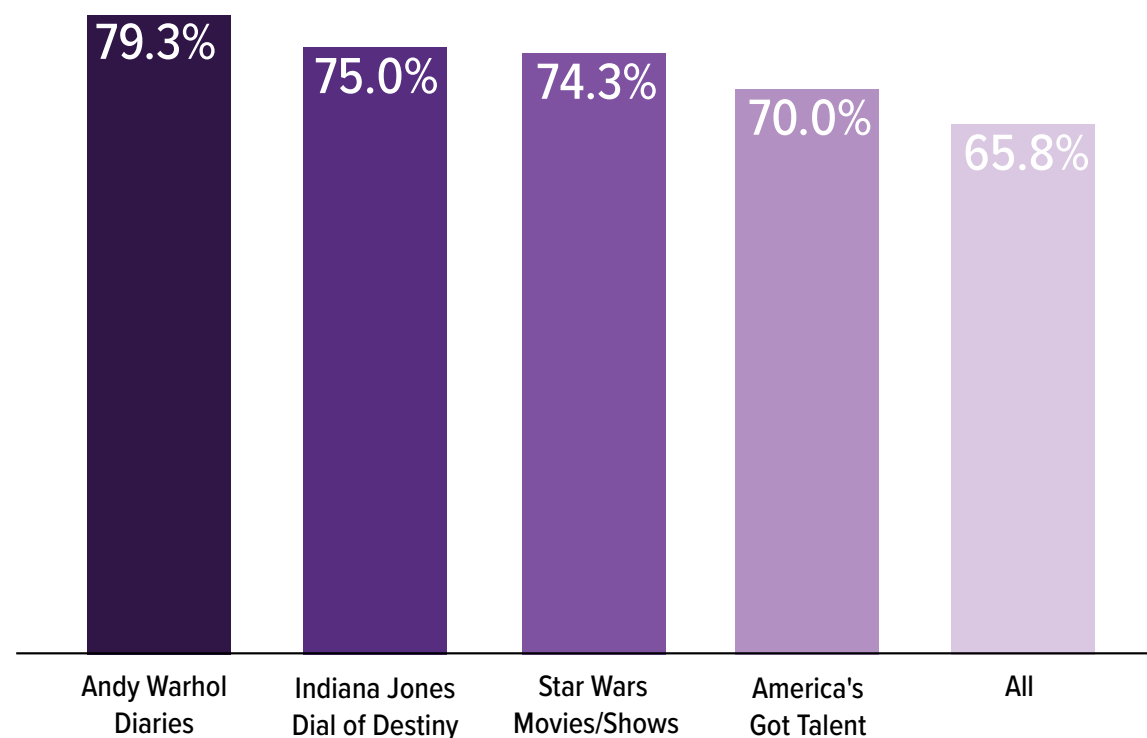
Source: Voicebot 2023



## Voice Clone Awareness Higher Among Select Media

- U.S. adults who have viewed media prominently featuring voice clones show higher awareness of the technology. America’s Got Talent (AGT) featured an act over the summer of 2022 that included an Elvis voice clone in the finals, boosting awareness by about 4%. Star Wars used tools to recreate the voices of deceased actors and de-age others, contributing to an 8% higher awareness. The Andy Warhol Diaries made voice clones integral to its production, with a Warhol voice clone narrating from his official diaries. Viewers of this documentary recognized the term “voice clone” at a rate of more than 13 percentage points higher than average.

Voice Clone Awareness Among Select Media Consumers



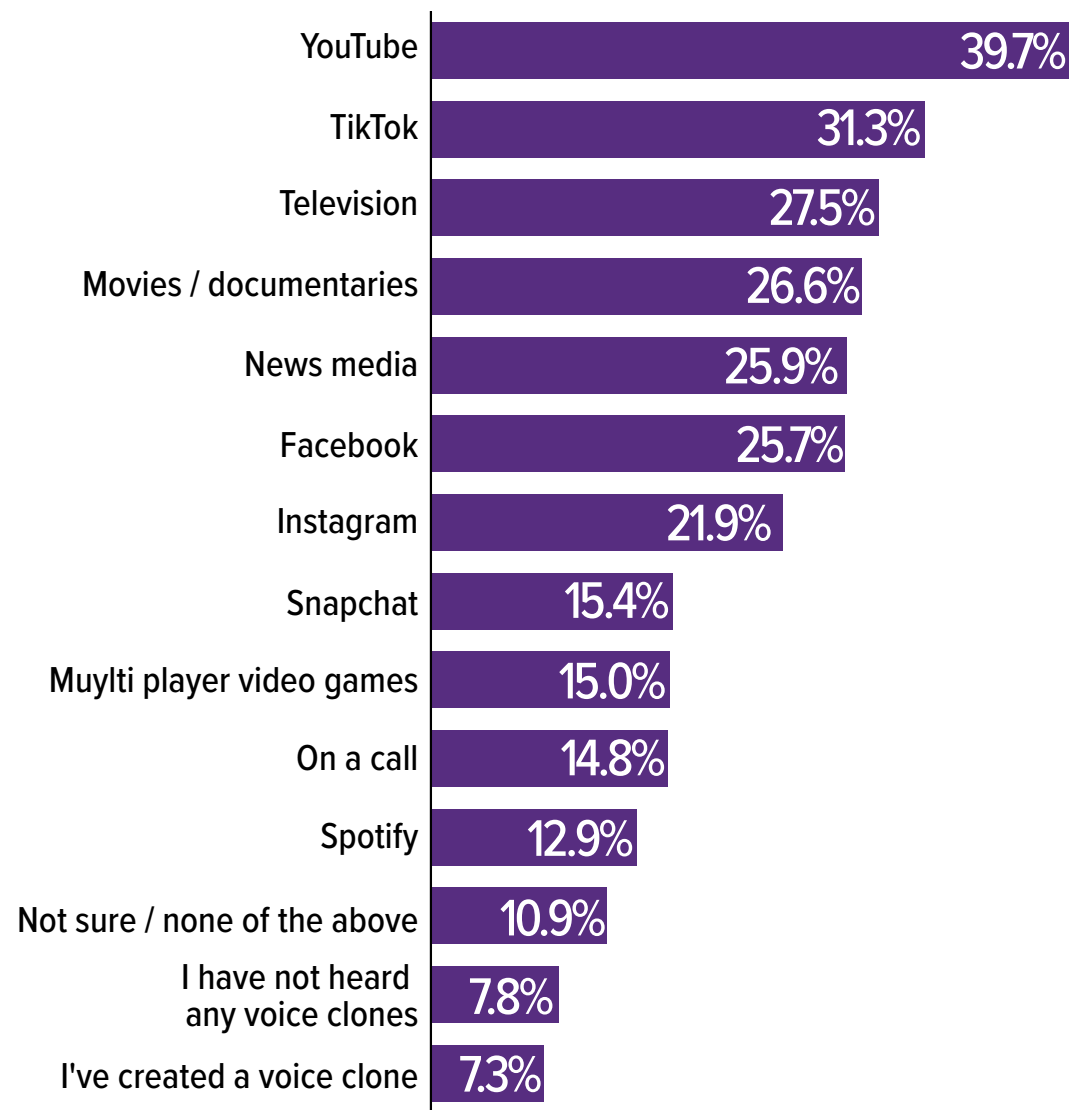
Source: Voicebot 2023



# Voice Clones are Encountered Across Media Formats

- The top two channels for voice clone exposure are the same as for deepfakes: YouTube and TikTok at 39.7% and 31.3%, respectively.
- These are followed by the three traditional mass media channels: Television (27.5%), Documentaries and Movies (26.6%), and News Media (25.9%), which edged out the social media heavyweights Facebook, Instagram, and Snapchat.
- Despite some high-profile deepfake songs, Spotify was identified by only 12.7% of consumers for voice clone encounters.
- Surprisingly, over 15% of consumers have experienced a voice clone on a call, and over 7% have some experience personally creating one.

## Deepfake Consumer Encounters by Channel

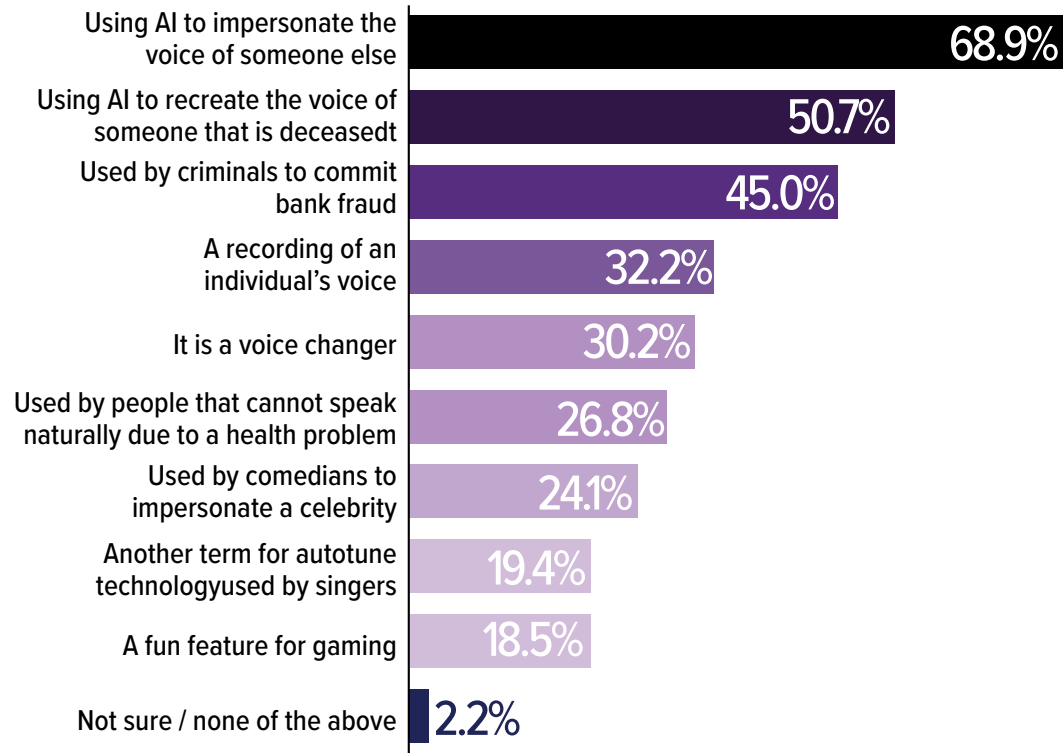


Source: Voicebot 2023



## How Consumers Define Voice Clones

### Consumer Definitions of Voice Clone Technology



Source: Voicebot 2023

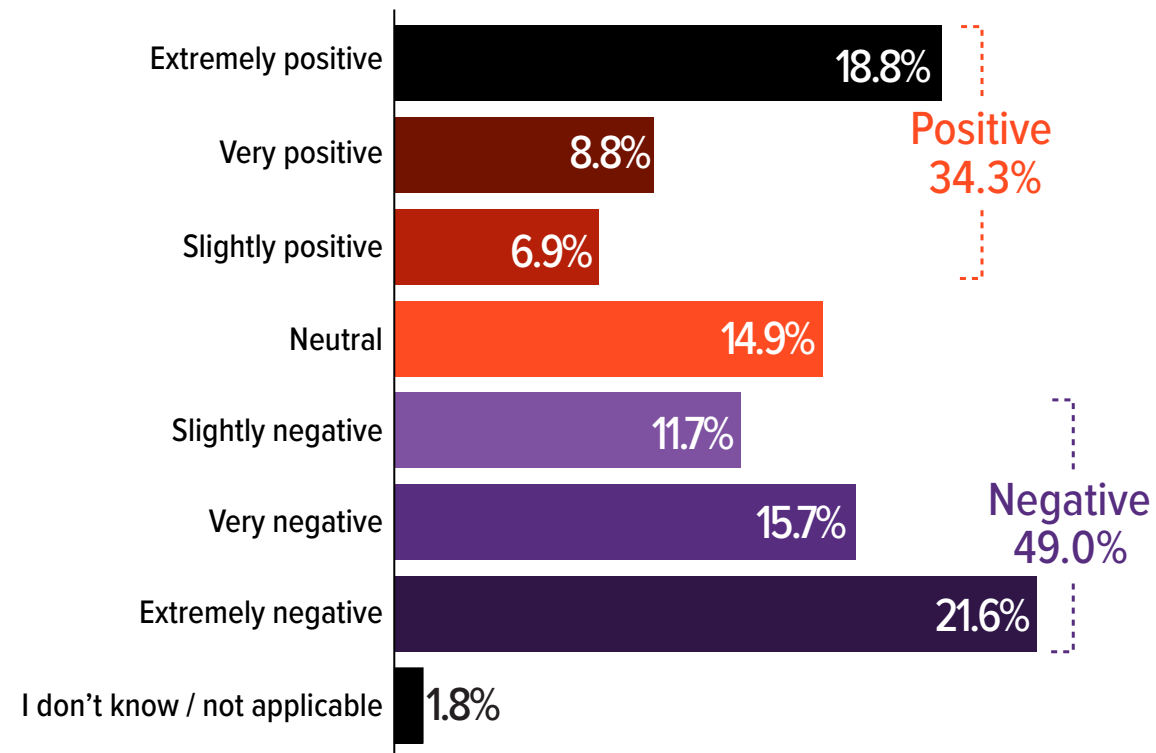


- Most consumers aware of the term “voice clone” associate it with AI used to impersonate a voice (68.9%) or recreate the voice of someone that is deceased (50.7%).
- The third most reported definition, at 45.0% was that voice clones are “used by criminals to commit bank fraud.” Consumers that chose this response were also more likely to be extremely or very concerned about voice clones.
- Two incorrect responses, “a recording of an individual’s voice” and “another term for autotune,” led to the exclusion of respondents who chose only these definitions. In addition, over 30% of people who chose a correct definition also selected an incorrect option, suggesting there is an inconsistent understanding of what constitutes a voice clone.

# Voice Clone Sentiment Biases Toward the Extremes

- Similar to the data on deepfakes, consumer sentiment about voice clones skews toward extremes. The two most selected responses were “extremely negative” (21.6%) and “extremely positive” (18.8%).
- Overall, positive sentiment totaled just over one-third (34.3%), while negative sentiment was just under one-half (49.0%).
- More than half of the positive sentiment (55%) falls under the “extremely” category, whereas negative sentiment is more distributed, with “extremely” accounting for only 44% of the negative responses.

## Voice Clone Sentiment Among Consumers

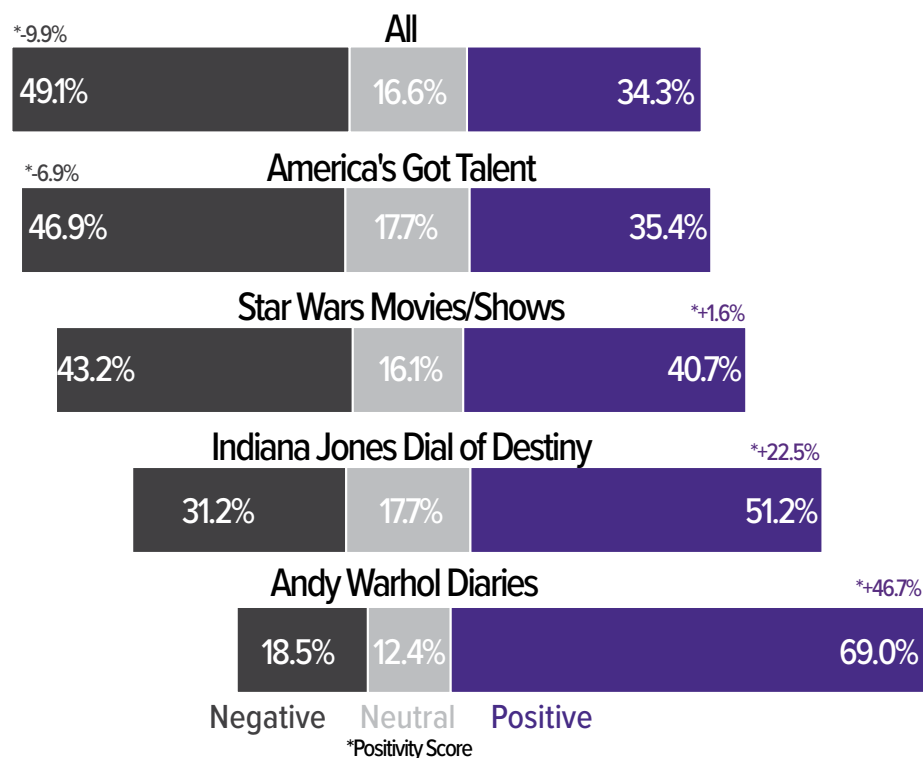


Source: Voicebot 2023



# Voice Clone Exposure in Media Raises Positive Sentiment

## Voice Clone Sentiment Among Media Consumers



- Positive voice clone sentiment is correlated with exposure to media that showcases the technology, though it is not clear how big of a factor it is. AGT included a voice clone in the finals in 2022, but not every audience member saw those episodes and the positive sentiment was similar to the overall group.
- By contrast, viewers of the Andy Warhol Diaries show a strongly positive sentiment totalling 69.0%, followed by the most recent Indiana Jones movies at 51.2%. The former used a voice clone; the latter did not.
- Star Wars used voice clones for movies and the Boba Fett series, and its viewers were significantly more positive about the technology than the general population. Similar to deepfakes, it appears exposure to voice clones in media may affect sentiment, but it can range from negligible to extreme.



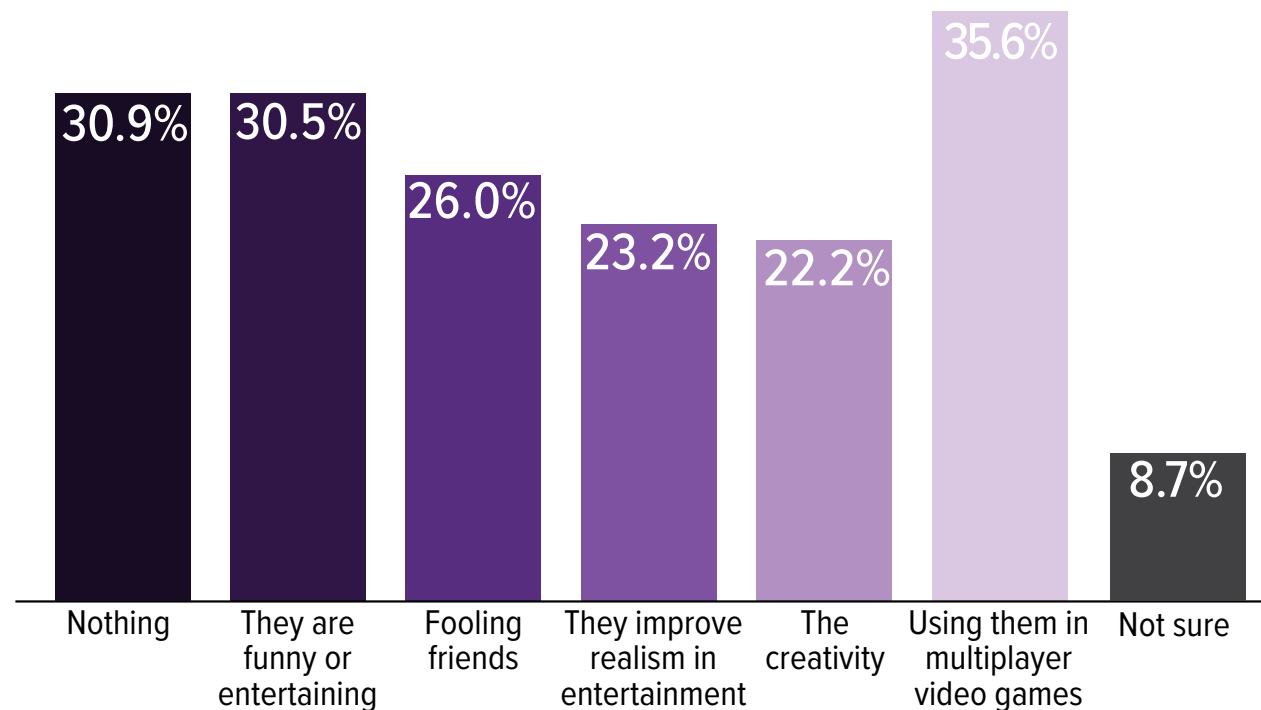
Source: Voicebot 2023



# Consumers Like Voice Clones for Comedy and Gaming

- Consumers express strong interest in voice clones. The most prominent positive reaction related to using of voice clones in multiplayer video games.
- Similar to deepfakes, a significant number of U.S. adults do appreciate the creativity and enhanced realism provided by voice clones, but at a far lower rate: 39.4% to 22.2% and 29.7% to 23.2%, respectively.
- About one-quarter of survey participants that know about voice clones said they like using them to fool friends, while 30.9% see no redeeming qualities of the technology.

## What Consumers Like About Voice Clones

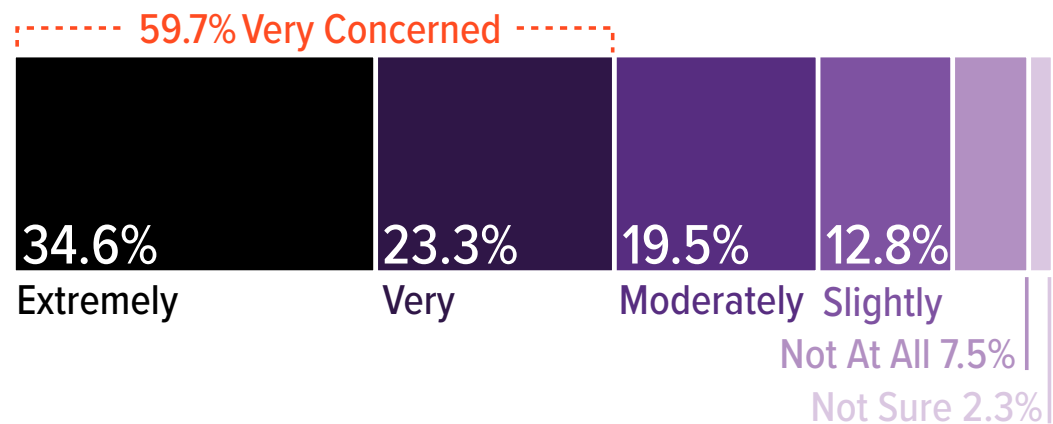


Source: Voicebot 2023



# Voice Clone Concern is High Among Consumers

## Voice Clone Concern Level Among Consumers



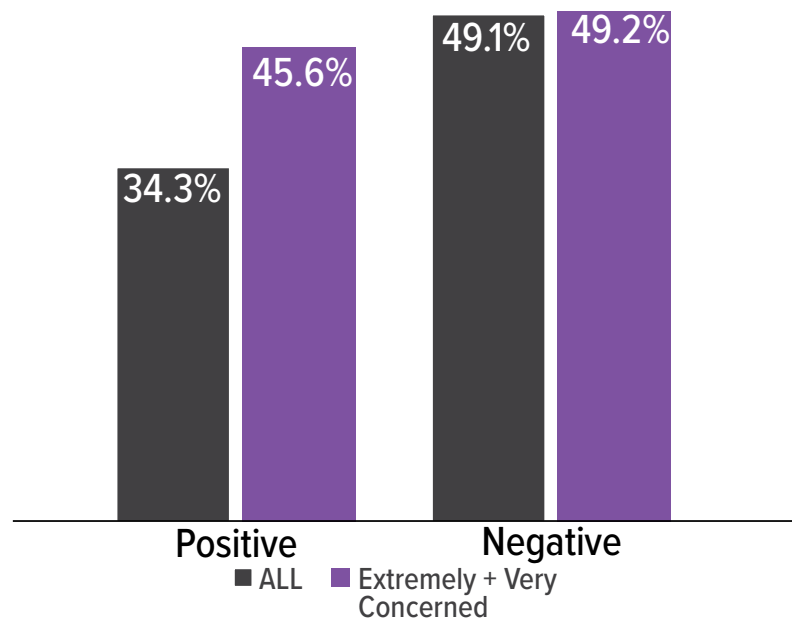
Source: Voicebot 2023



- Over 90% of U.S. adults express some concern that voice clones could negatively impact them personally, with about 80% being at least moderately concerned, and 60% indicating extreme or very high concern.
- Voice clones may have many meritorious uses, but that has not overridden latent concerns. This concern is also expressed at a time when fraudulent use of voice clones is on the rise, particularly to fool family members about a child or relative that needs help.

## The Most Concerned are More Positive

### Voice Clone Sentiment Among Consumers With High Concern About Personal Risks

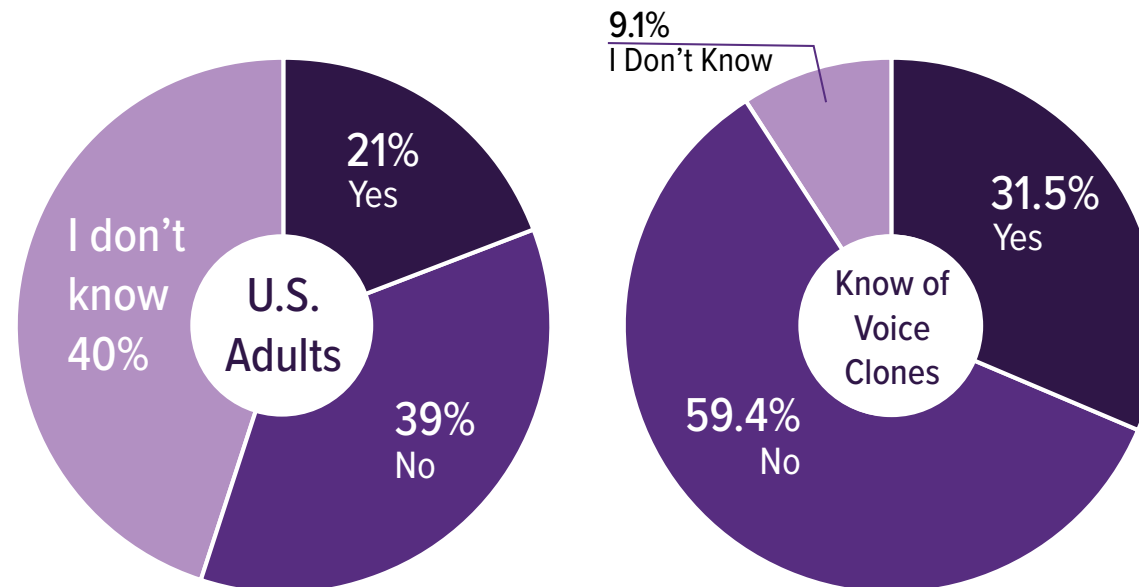


- Consumers that are most concerned about the personal risks posed by voice clones expressed about the same strong negative sentiment as the total survey sample. However, these “most concerned” were also more positive than the overall average. This was not as extreme of an inversion as with deepfakes, but it is notable.
- As with deepfakes, it appears that greater interest in voice clone technology may lead to higher perceived value even if the concern level remains significant. The most concerned consumers were also significantly more likely to cite the benefits of voice clones in multiplayer video games and for greater realism in entertainment than the overall average. Of course, they were also more likely to know about fraudulent criminal use.

## Personal Knowledge of Voice Clones is Widespread

- From a total population standpoint, about 21% of U.S. adults say they know someone who has had a voice clone made. Approximately 40% of the population either does not know if an acquaintance has had a voice clone made or is unaware of the term, and 39% answered “no”.
- About one-third of U.S. adults familiar with voice clones say they know someone who has had a clone made. This figure is slightly lower than for deepfakes (35.6%), which is a broader category.

### Consumers That Know Someone Who Has Had a Voice Clone Made of Them



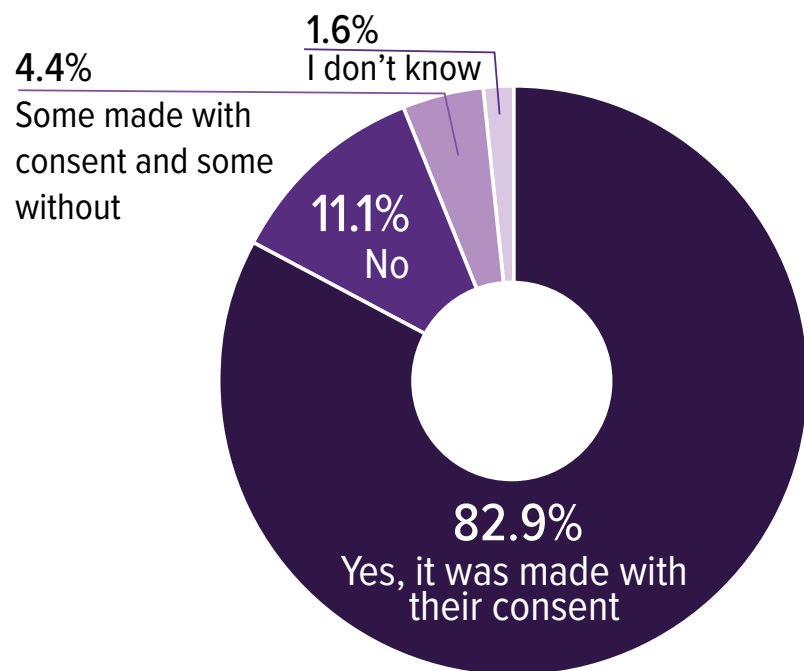
Source: Voicebot 2023





## Most Voice Clones Are Made with Consent

Percent of Voice Clones Consumers Say Were Made With Person's Consent



- Over 80% of U.S. adults that know someone who had their voice cloned using AI said the process was done with consent. The concern about voice clone use for fraud reflecting personal risk is likely influenced by the 15.5% that said they know of voice clones made without consent.
- While those with knowledge of acquaintances having voice clones made without consent represent only 3.2% of U.S. adults, that reflects a total of nearly 11 million people. Voice cloning technology is becoming easier to access, less expensive, and more widely used by consumers as well as enterprises. These figures, both for consent and non-consent, are sure to rise.



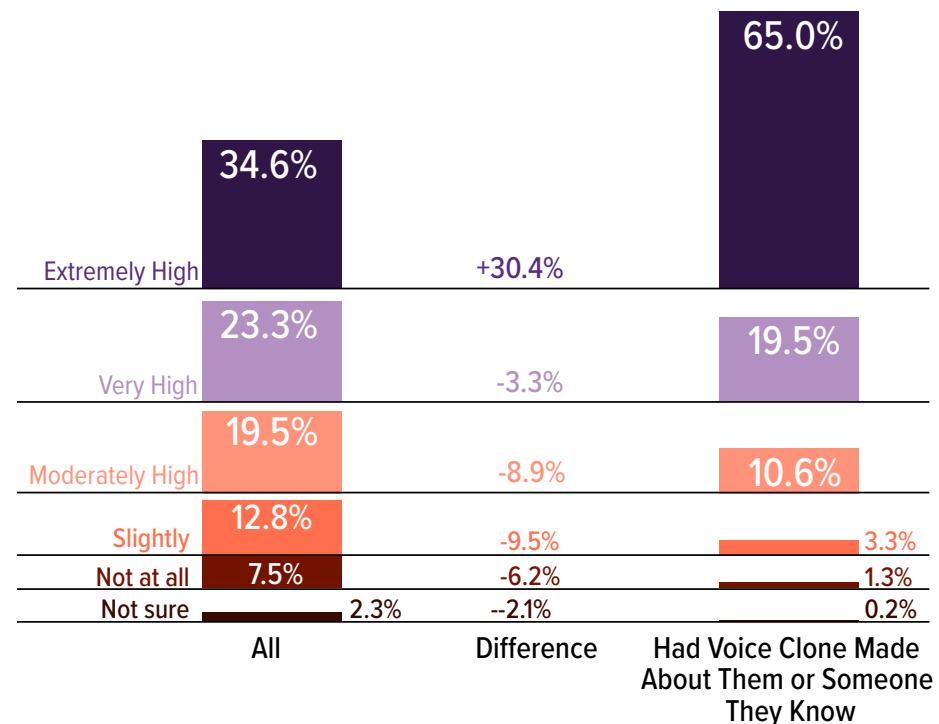
Source: Voicebot 2023



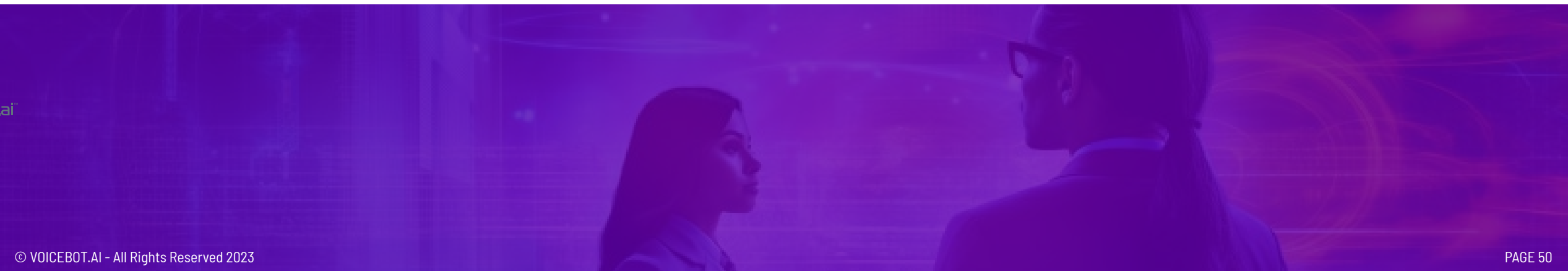
# Voice Clone Concern is Higher When You Know a Victim

- Similar to the data for deepfakes, a personal connection with someone that has had a voice clone made is correlated with a higher level of concern about the technology. While 57.9% of U.S. adults that are aware of voice clones report “extremely” or “very” high concern about personal negative impacts, the figure rises to 84.5% if they know someone with a voice clone. Most of that rise is attributed to “extremely high” which is more than 30 points higher than the average.
- Interestingly, a personal connection to someone with a voice clone results in higher positive sentiment about the technology. This is true whether or not the voice clone was made with their consent. Higher awareness is correlated with more positive sentiment and concern.

### Voice Clone Concern Level for Consumers That Know Someone That Has a Voice Clone



Source: Voicebot 2023

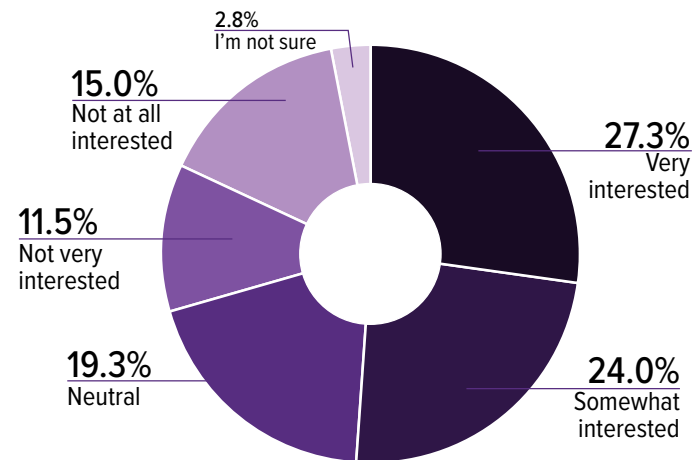


## Consumers Show Strong Interest in Voice Authentication

- While nearly 60% of U.S. adults rate themselves as very or extremely concerned about voice clones and over 90% have at least some concern, over half are interested in using voice authentication when interacting with a bank, healthcare provider, or insurance company.

- Among consumers that are most concerned about voice clone risk, the interest in voice authentication climbs to 69%.
- Consumers are concerned voice clones may be used to harm them, but appear to have confidence that voice authentication can combat the risk.

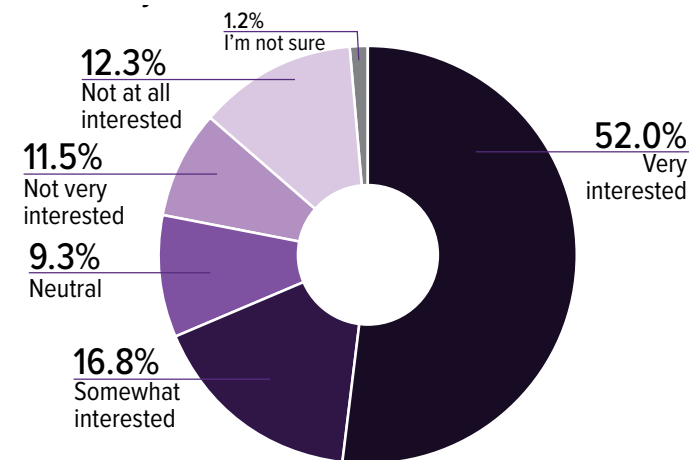
### Consumer Interest in Voice Authentication



Source: Voicebot 2023



### Interest in Voice Authentication Among Those Very Concerned About Voice Clones



Source: Voicebot 2023



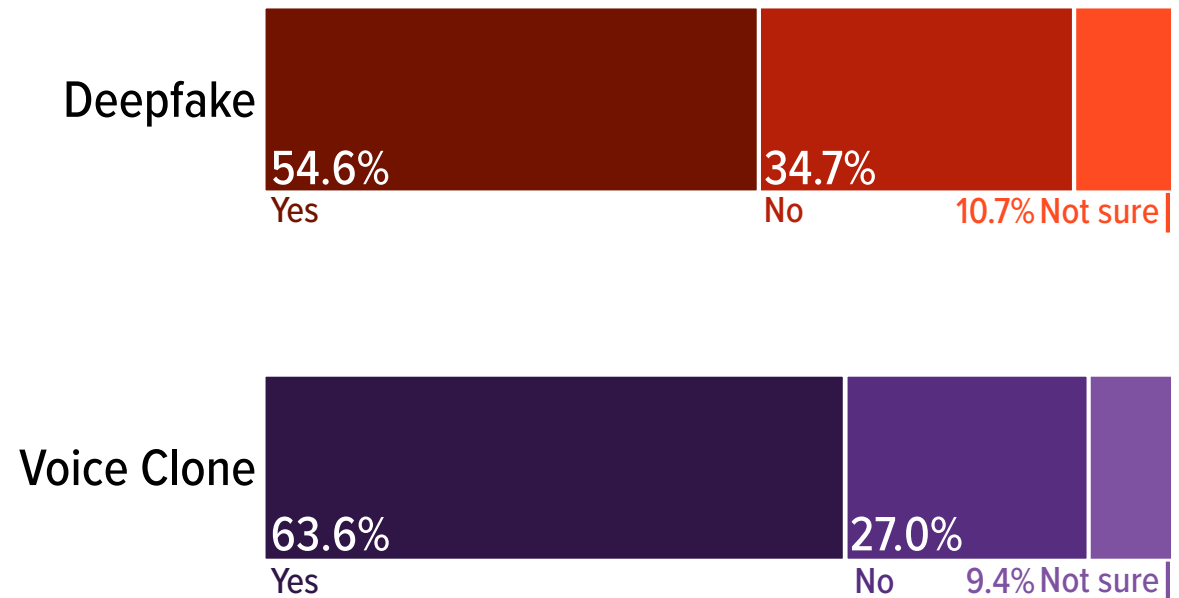
The image features two women in business attire standing in profile, facing each other as if in a meeting. The entire scene is overlaid with a semi-transparent red filter. In the background, there are faint, glowing technical graphics including a bar chart on the left, a line graph in the center, and a circular diagram on the right. The overall aesthetic is professional and tech-oriented.

# Comparing Deepfake and Voice Clone Consumer Experience and Sentiment

## Voice Clones Have Higher Awareness Than Deepfakes

- The term voice clone registered higher consumer awareness than deepfake, at 63.6% to 54.6%, respectively. This may be surprising when you consider how much higher deepfake registers in Google trends data. However, an explanation may be that the meaning of voice clone is clear because most people are well aware of cloning. By contrast, deepfake is a portmanteau that originated in 2017, and “deep” stands for deep learning, a term few U.S. adults have encountered outside of AI discussions. As a result, deepfake could drive more searches to learn the meaning.
- Another consideration is that 83% of U.S. adults that know about deepfakes also know about voice clones versus just 69% of U.S. adults with voice clone awareness know of deepfakes.

### Deepfake and Voice Clone Awareness Among Consumers

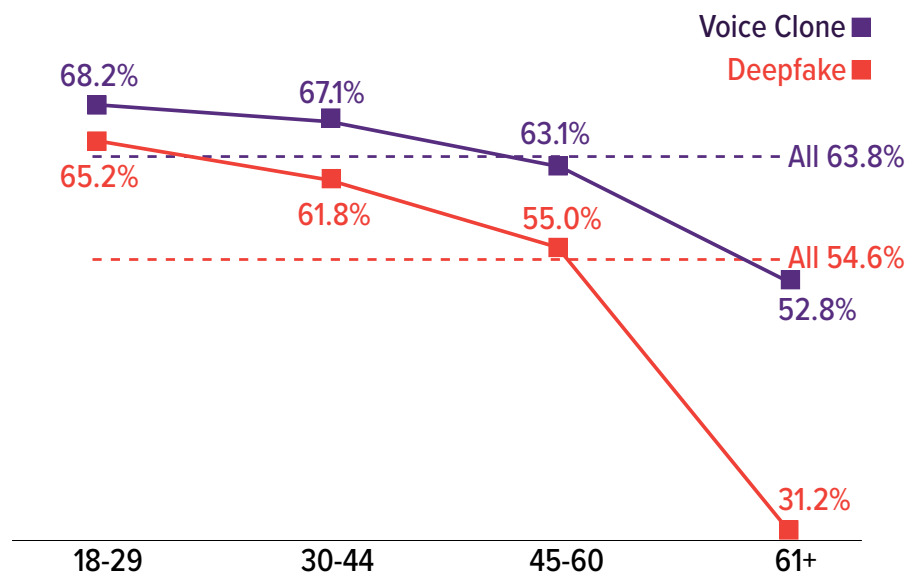


Source: Voicebot 2023



# Awareness Declines as Age Increases

Deepfake and Voice Clone Awareness by Age



- Deepfake and voice clone awareness declines gradually as age cohorts rise up to 60 years, and then falls off precipitously. The decline is more extreme for deepfakes. While the difference between the 18-29 and 45-60 cohorts is just over four percentage points for voice clones, it is nearly 10 percentage points for deepfakes. Similarly, deepfake awareness drops by twenty-four percentage points between the 45-60 and the 61+ age cohorts, while it is only about ten percentage points for voice clones.
- Voice clone awareness is higher in each cohort, and the gap widens as age increases.

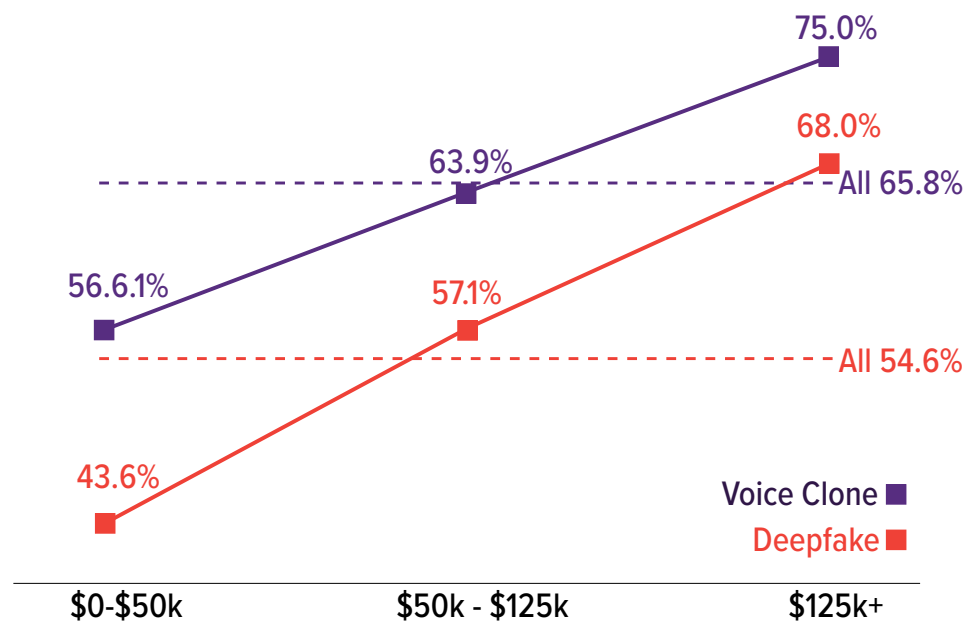


Source: Voicebot 2023



## Awareness Rises with Income

### Deepfake and Voice Clone Awareness by Income



- Deepfake and voice clone awareness rises with income. While three-quarters of U.S. adults with income over \$125,000 know about voice clones and more than two-thirds know of deepfakes, those figures are just 56.5% and 43.6%, respectively, for income less than \$50,000.
- The awareness gap between the terms is also greatest in the lowest income cohort. As income rises, the likelihood of a consumer knowing either or both terms rises.



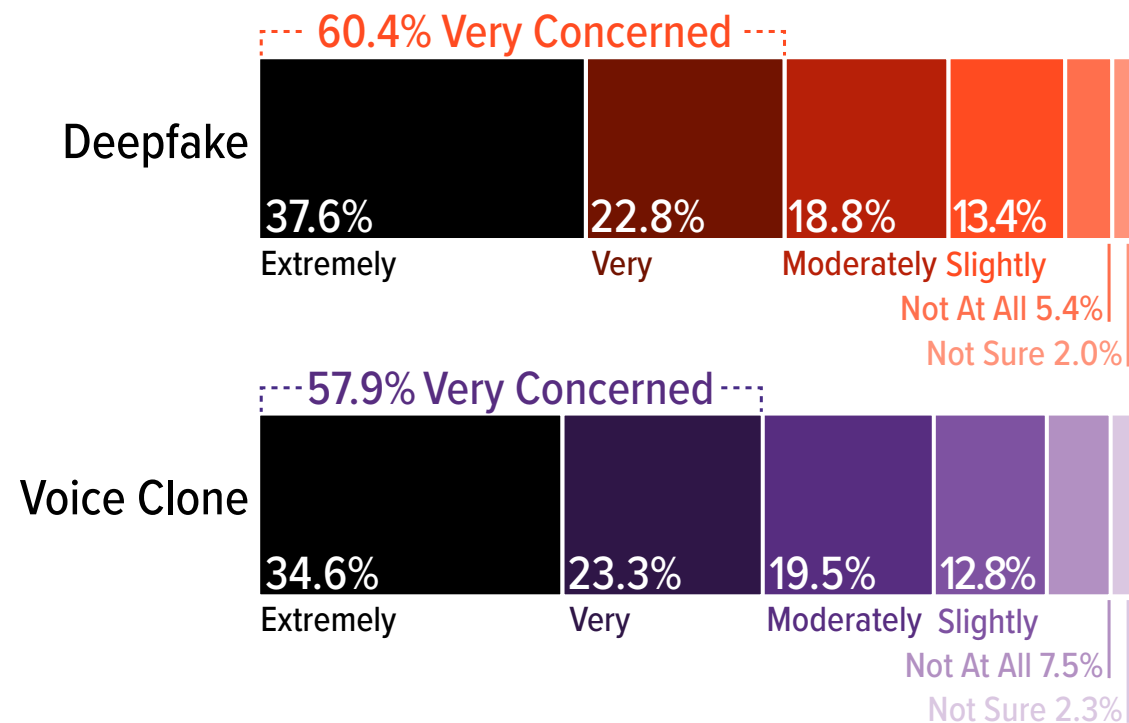
Source: Voicebot 2023



# Consumers are Slightly More Concerned About Deepfakes

- U.S. adults report they are “extremely” or “very” concerned about negative impacts at a higher rate for deepfakes than voice clones. The total for deepfakes is 60.4% and 57.9% for voice clones. The key difference shows up in the “extremely” category where deepfake outpaced voice clones by three percentage points.
- All of the other concern categories vary by less than one percentage point except for “not at all.” 7.5% of consumers that are familiar with voice clones express no concern compared to 5.4% of those with knowledge of deepfakes. Granted, these figures are both very small. Over 90% of consumers that know of these technologies harbor at least some concern.

### Deepfake and Voice Clone Concern Among Consumers



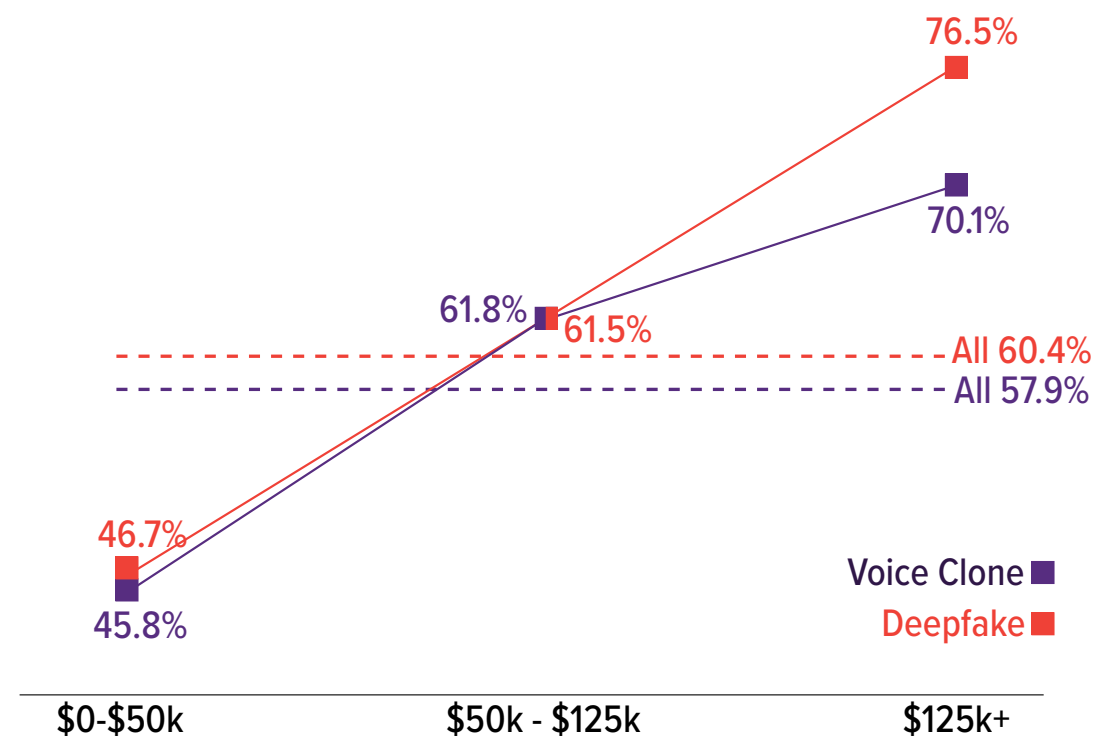
Source: Voicebot 2023



## The Highest Levels of Concern Rise with Income

- Consumers with the highest incomes also express the highest level of concern. Less than half of consumers with income below \$50,000 said they were “extremely” or “very” concerned about the potential of deepfakes or voice clones to negatively impact them personally. Those figures rise to over 70% for U.S. adults with annual income over \$125,000.
- Interestingly, you will see in the next section that higher income is also associated with higher expectations that companies are taking steps to protect their customers against deepfakes and voice clones.

Deepfake & Voice Clone Concern Level Among Consumers by Income

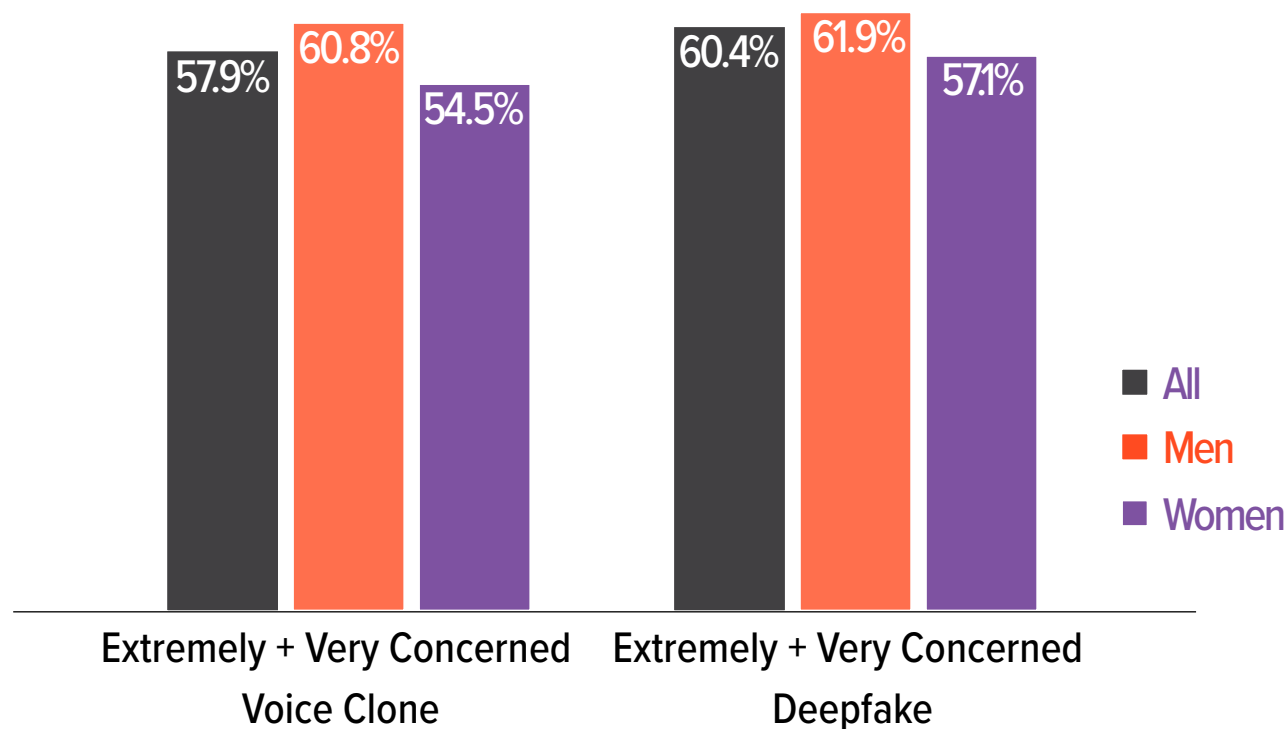


Source: Voicebot 2023



## Men Report More Concern Than Women

Deepfake Sentiment Among Consumers



- Men report significantly more concern than women about the potential of deepfakes and voice clones to cause negative personal impact. 61.9% of men had “extremely” or “very” high concern about deepfakes compared to 57.1% of women. The gap was wider for voice clones with 60.8% for men and 54.5% for women.
- These results may be surprising to anyone familiar with the rise of deepfake revenge porn and its disproportionate impact on women. However, it appears that concern has not elevated the perceived risk for women over men. In fact, around 7% of women expressed no concern at all for personal negative impact from either technology compared to about 5% for men.



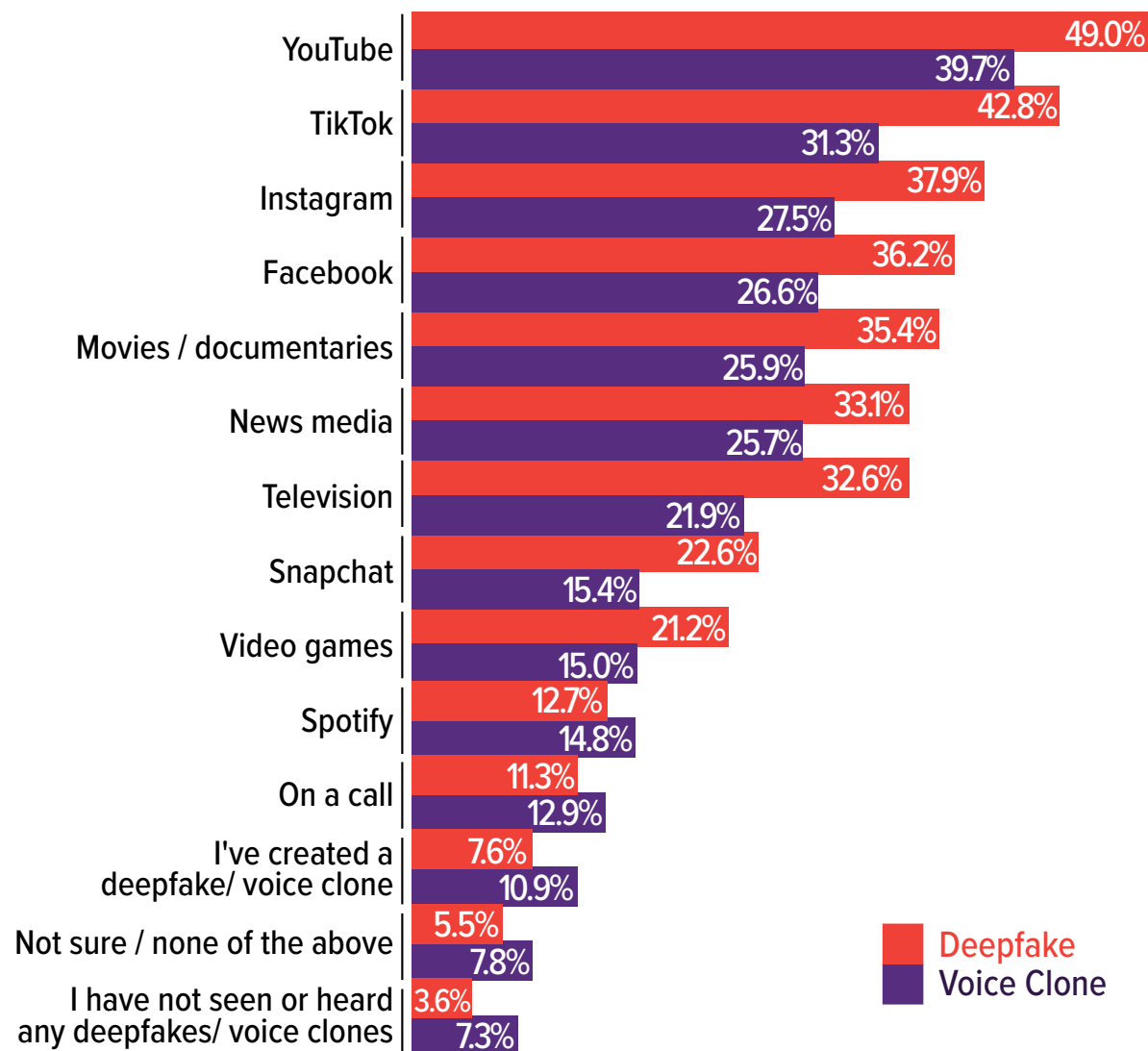
Source: Voicebot 2023



# Deepfakes are Experienced Across More Channels

- Deepfakes are encountered more broadly than voice clones on social media, in traditional media—such as television, movies, and the news and in video games. This is not surprising as voice clones are a subset of the broader deepfake category, and these are generally visual-first channels. In addition, it corresponds with the finding that consumers say they are about twice as likely to have no prior exposure to a voice clone (7.3%) as a deepfake (3.6%).
- Voice clones outpaced deepfake exposure in the audio-first channels, such as Spotify and a phone call. Exposure is also higher for creating a voice clone (10.9%) compared to a deepfake (7.6%). The rise of free voice cloning sites and ease of creation is the likely cause of this difference.

Deepfake and Voice Clone Consumer Encounters by Channel



Source: Voicebot 2023

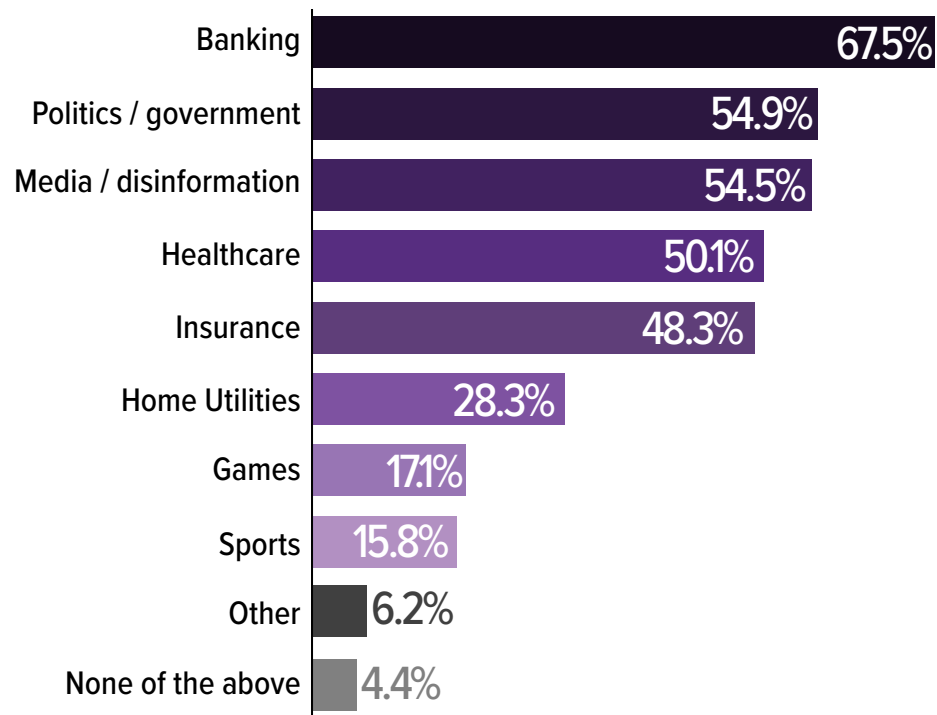


# Deepfake and Voice Clone Concern by Domain

The background of the slide is a futuristic office environment. It features silhouettes of four people sitting at desks with laptops, viewed from behind. The scene is set against a large window with a view of a cityscape at dusk or dawn. The entire image is overlaid with a semi-transparent purple gradient and a white grid pattern that recedes into the distance.

## Consumers Are Most Concerned About Banking Risk

### Domains Where Consumers are Most Concerned About Voice Clones



Source: Voicebot 2023



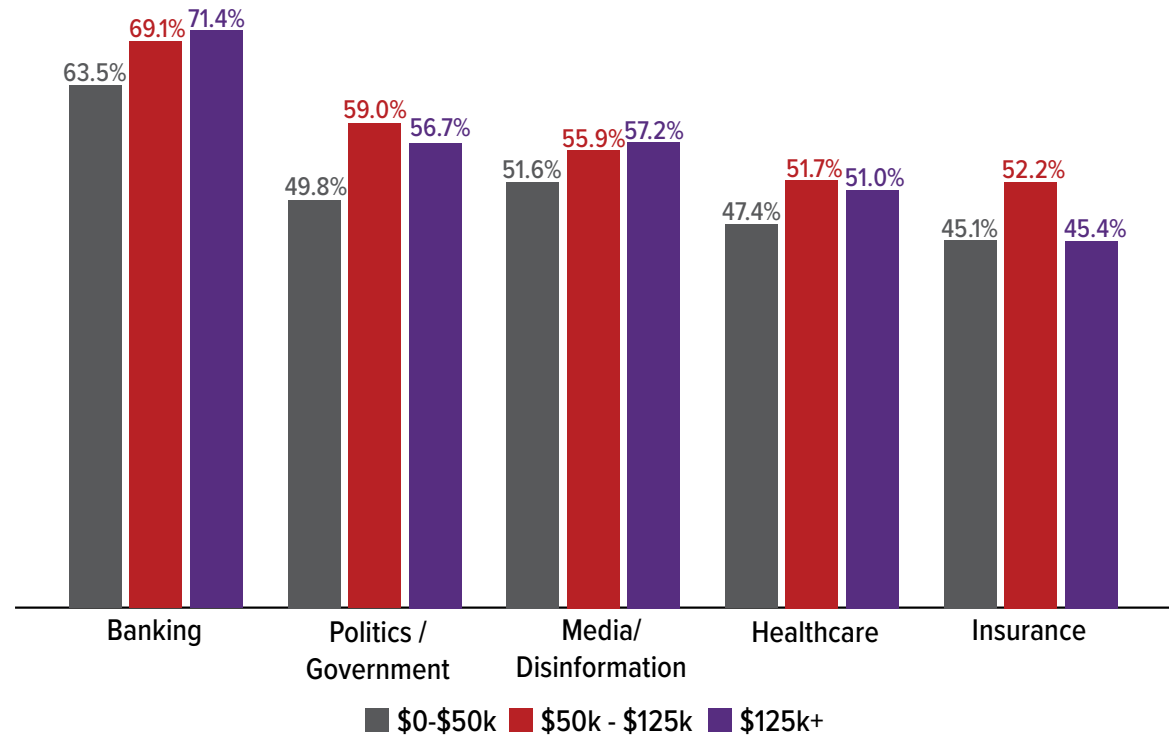
- More than two-thirds of U.S. adults expressed concern about the risks posed by deepfakes and voice clones related to “Banking.” That was followed by the tight grouping of “Politics / Government,” “Media / Disinformation,” “Healthcare,” and “Insurance,” that tallied responses ranging from 48% to 55%.
- Other categories were well behind, ranging from “Other” at 6.2% to “Home Utilities” at 28.3%.
- However, among the most notable findings is that only 4.4% of consumers could not identify a single industry or domain that caused them concern, which means over 95% could. This figure accounts for consumers that did not know the terms deepfake or voice clone before learning the definition near the end of the survey.

*\*For this question and those that follow, the survey participants were provided with term definitions. Earlier questions were posed without definitions.*

# Income Impacts Domain Concern

- U.S. adults across every income category were most likely to cite “Banking” as an area of concern related to deepfakes and voice clones. The frequency of citation rose with income level.
- Consumers with income below \$50,000 were the least likely to express concern in every category, though the rate of citation for “Insurance” was nearly equal to the \$125,000+ income group.
- Consumers in the middle income group that ranged from \$50,000 - \$125,000 were the most likely to cite “Politics / Government” and “Insurance” by meaningful margins. It also ranked highest for “Healthcare” but was less than 1% higher than the upper income group.

### Top Domains Where Consumers are Most Concerned About Voice Clones and Deepfakes by Income



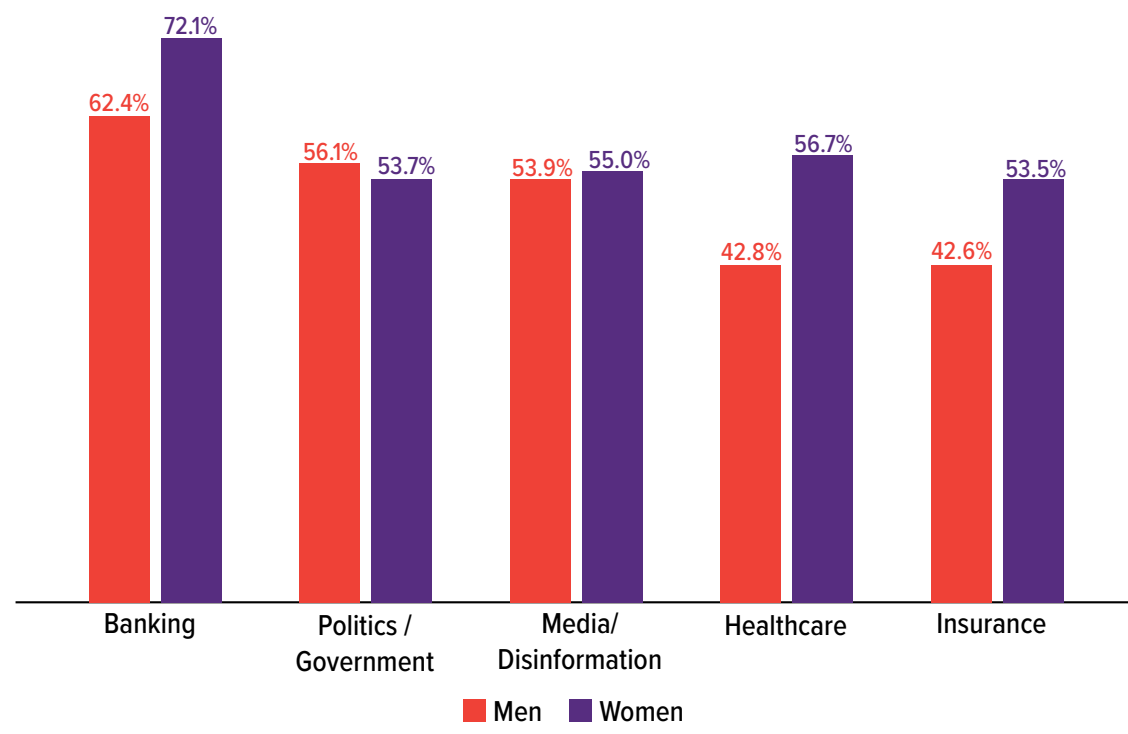
Source: Voicebot 2023



## Women Express More Concern in Direct Impact Domains

### Domains Where Consumers are Most Concerned About Voice Clones and Deepfakes by Gender

- Women are more concerned than men about the potential for negative impacts of deepfakes and voice clones in “Banking,” “Healthcare,” “Insurance,” and “Media / Disinformation.” Men are more likely to express concern over “Politics / Government.”
- However, there is more to this story. While the gulf between men and women in “Politics / Government” and “Media / Disinformation” is within a couple percentage points, the variance for “Banking,” “Healthcare,” and “Insurance” are 9.7%, 13.9%, and 10.9%, respectively. The services with a more immediate personal impact are more likely to be cited by women as areas of concern.



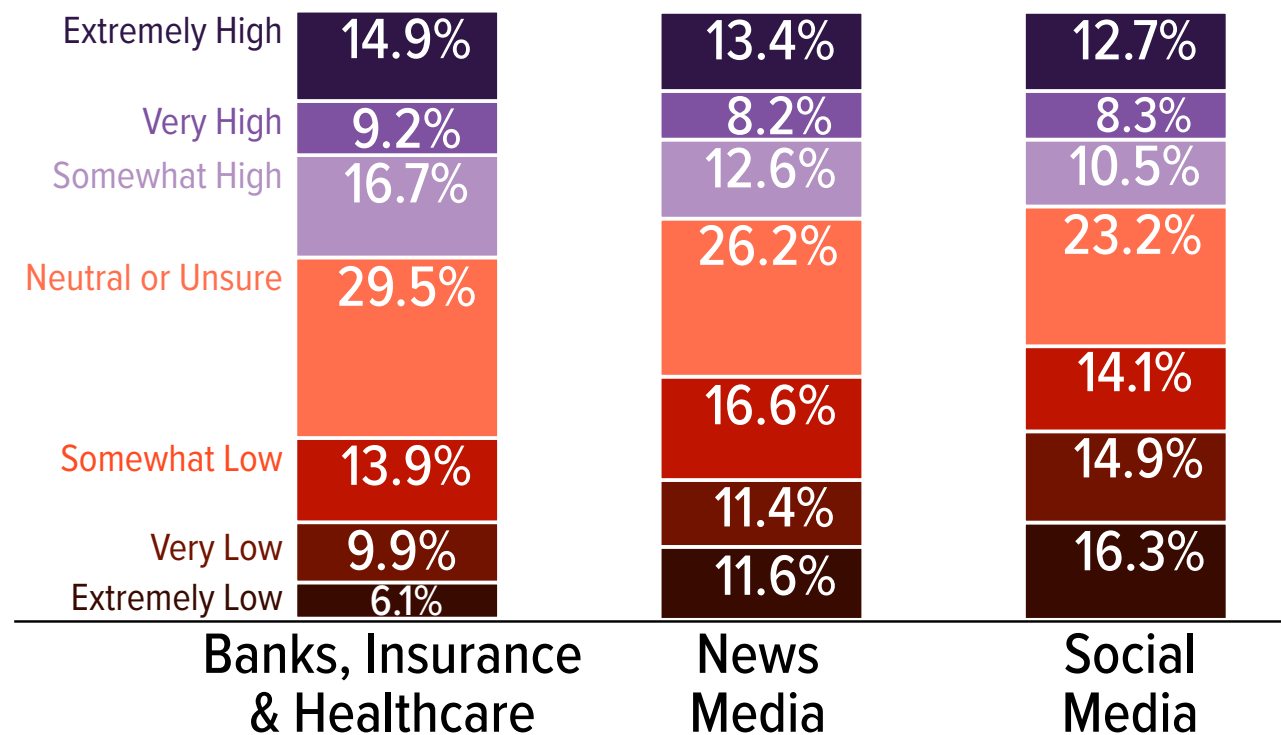
Source: Voicebot 2023



## Consumer Expectations Differ for Banks and Media

- Over 40% of consumers have high confidence that banks, insurance companies, and healthcare providers have taken steps to protect customers from deepfake and voice clone fraud. That same confidence falls to 34% for the news media and about 31% for social media. It is unclear if companies have taken steps to justify this confidence.
- Consider the inverse analysis which suggests that 30% have low confidence that banks, insurance, and healthcare have taken steps to protect their customers. That means bank customers have a confidence ratio of +11%, with about 30% unsure. In short, consumers have relatively high confidence that banks, insurers, and healthcare providers are taking proactive steps to protect them.
- By contrast, consumers have lower expectations for news media and social media. The confidence ratio is -5% and -14%, respectively. Consumers are not optimistic that “media” organizations are proactively addressing this problem.

### Consumer Confidence in Deepfake and Voice Clone Protection for Key At-Risk Industries

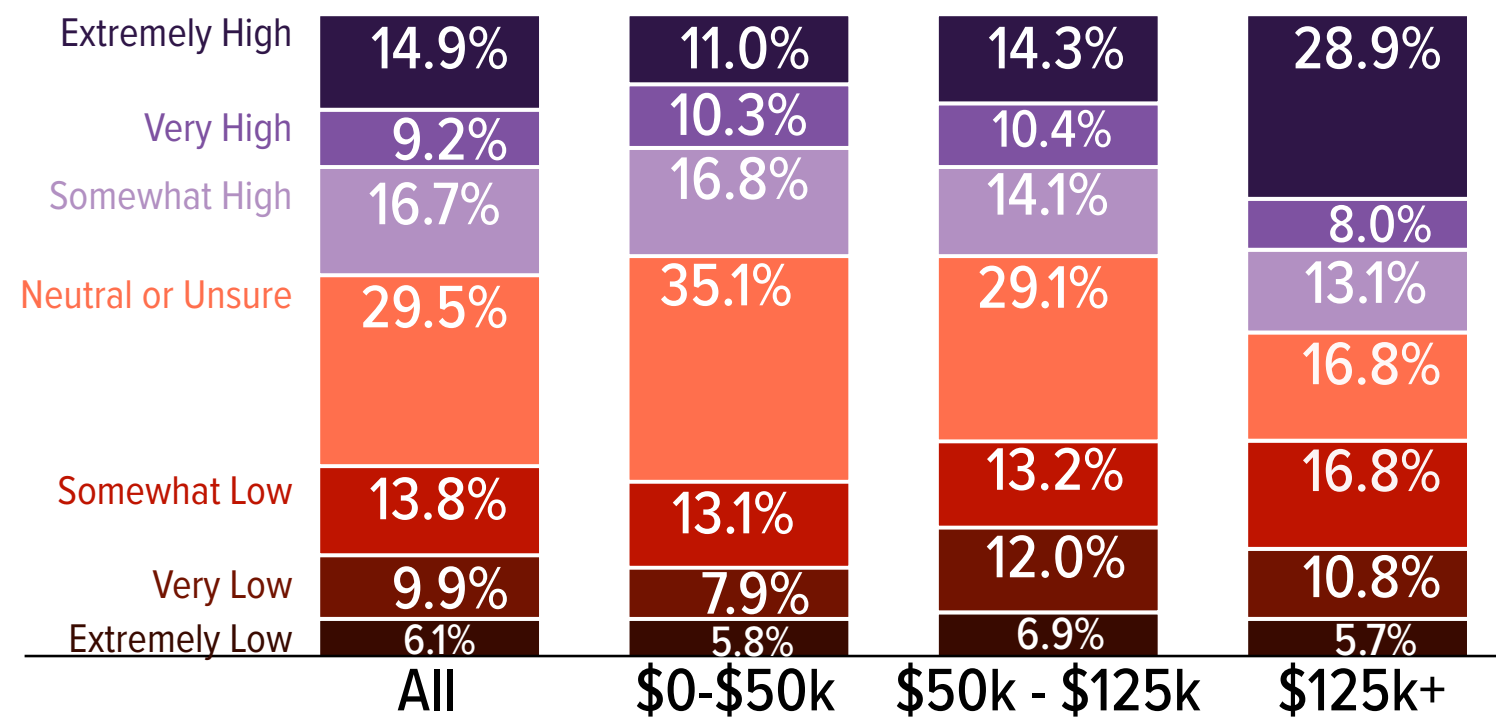


Source: Voicebot 2023



## High Expectations of Banks, Insurance, and Healthcare

Consumer Confidence in Deepfake and Voice Clone Readiness of Banks, Insurance, and Healthcare Providers by Income



- While 40% of all consumers have high confidence that banks, insurance companies, and healthcare providers have taken steps to protect customers from deepfake and voice clone fraud, the figure rises to 50% for consumers with income higher than \$125,000.
- Interestingly, the top income group is also the most skeptical that protections are in place, followed closely by the middle income group in the \$50,000 - \$125,000 range. The means that the top income cohort has a deepfake protection confidence ratio of +16.8%, but that figure is just 6.7% for the middle income cohort which has similar skepticism but far less optimism.



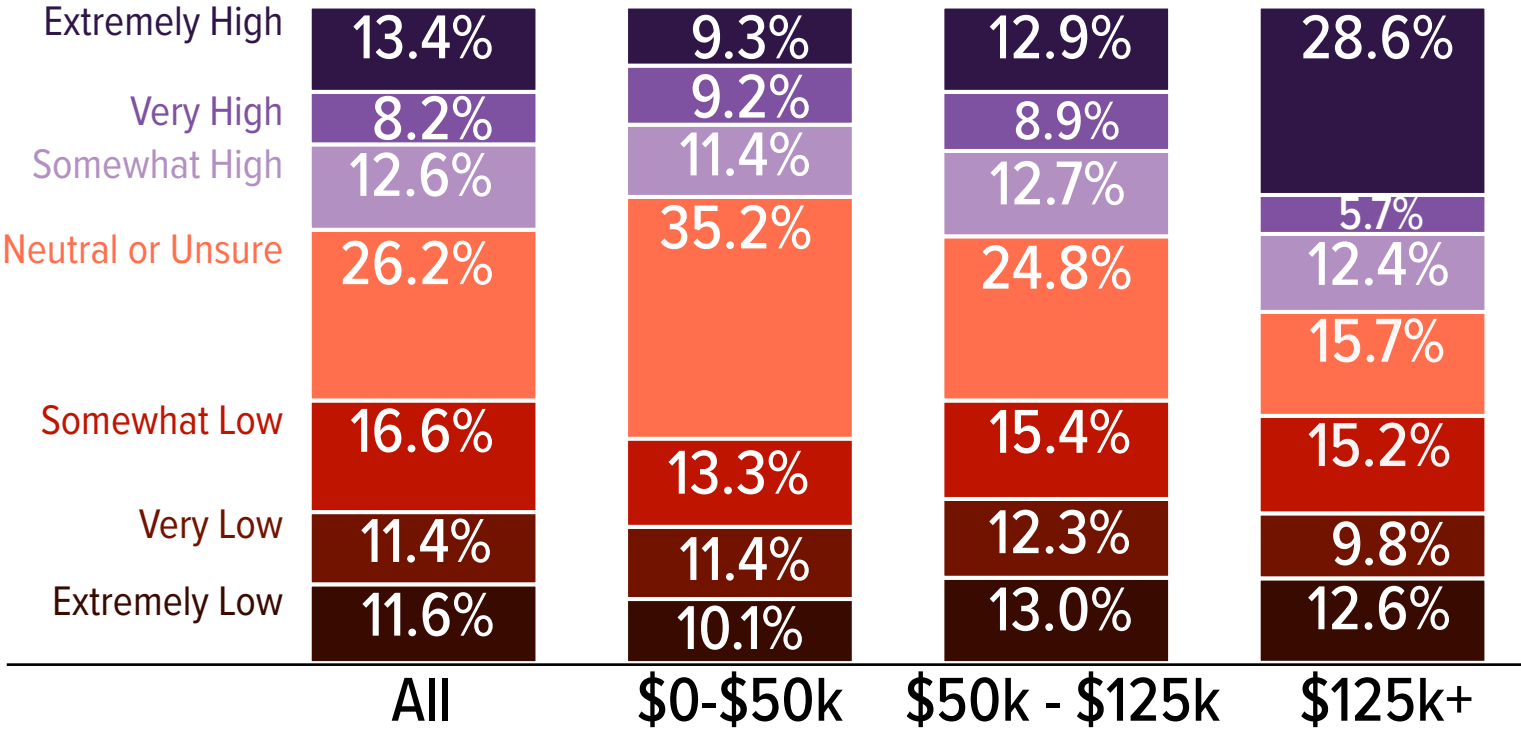
Source: Voicebot 2023



# Split Views About News Media Readiness

- Discussion about how deepfakes will impact political campaigns and government policy through the spread of misinformation in traditional media channels is on the rise. Consumers have less confidence that news media organizations are taking proactive steps to combat the risk than they do for financial services and healthcare.
- This sentiment shows a news media deepfake protection confidence score of -5.4% across all U.S. adults. However, there is an interesting pattern among income cohorts. The highest income consumers have a +9.0% confidence score, while the middle and lowest income groups report -4.9% and -6.2%. Higher income is correlated with more confidence while middle and lower income are associated with more skepticism.

### Consumer Confidence in Deepfake and Voice Clone Readiness of News Media by Income

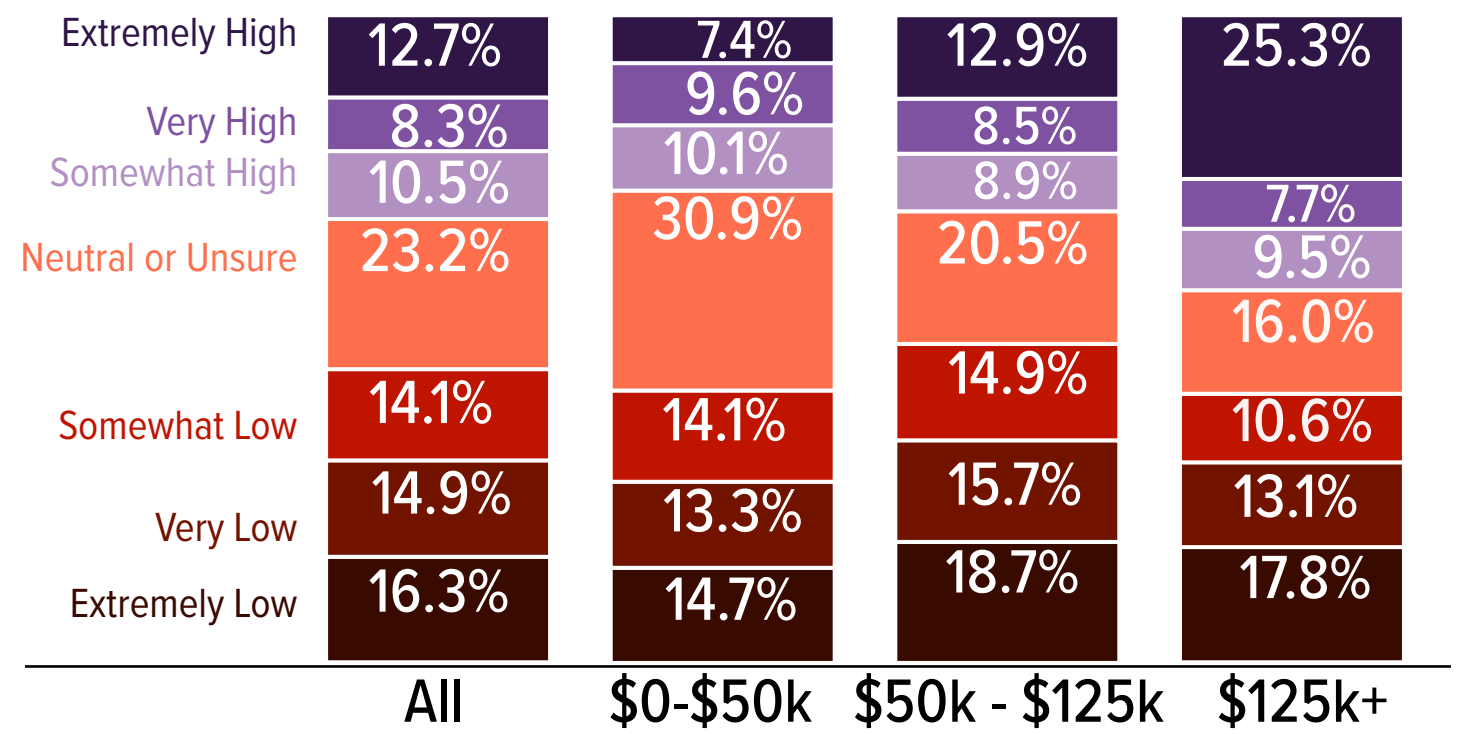


Source: Voicebot 2023



## Skepticism About Social Media Readiness

**Consumer Confidence in Deepfake and Voice Clone Readiness of Social Media by Income**



- Social media follows the income sentiment patterns of the other industries, but consumers express far more skepticism across each income cohort. The highest earners are, once again, the most positive with a +1% deepfake protection confidence score. Another way to interpret the data is this group is equally optimistic and pessimistic.
- The most skeptical cohort is the middle income group with a -19.0% score, followed closely by -15.0% for the lower income group. That led to an aggregate confidence score of -13.8%.
- Of course, social media is also where most consumers indicate they have encountered deepfakes and voice clones. This means they have first-hand experience with how the platforms police the technology.



Source: Voicebot 2023



## High Income Optimists and Middle Income Skeptics

- The summary table makes clear that the highest income consumers are the most optimistic about industries taking steps to protect their customers from risks posed by deepfakes and voice clones.
- Moreover, the data show a recurring theme that the middle cohort of \$50,000 - \$125,000 annual income are the most skeptical. This means they are the most likely to express low confidence that these industries are being proactive. The area where the optimism outweighs the pessimism is in banking, insurance, and healthcare.
- The lower income group falls in between the middle and upper income cohorts for each category.

*\*The deepfake protection confidence score is calculated by subtracting the low confidence sentiment responses from the high confidence.*

Deepfake Protection Consumer Confidence Score  
by Industry and Income

|                                  | All    | \$0-\$50k | \$50-\$125k | \$125K+ |
|----------------------------------|--------|-----------|-------------|---------|
| Banking, Insurance, & Healthcare | 11.0%  | 11.3%     | 6.7%        | 16.8%   |
| News Media                       | -5.4%  | -4.9%     | -5.4%       | 9.0%    |
| Social Media                     | -13.8% | -15.0%    | -19.0%      | 1.0%    |

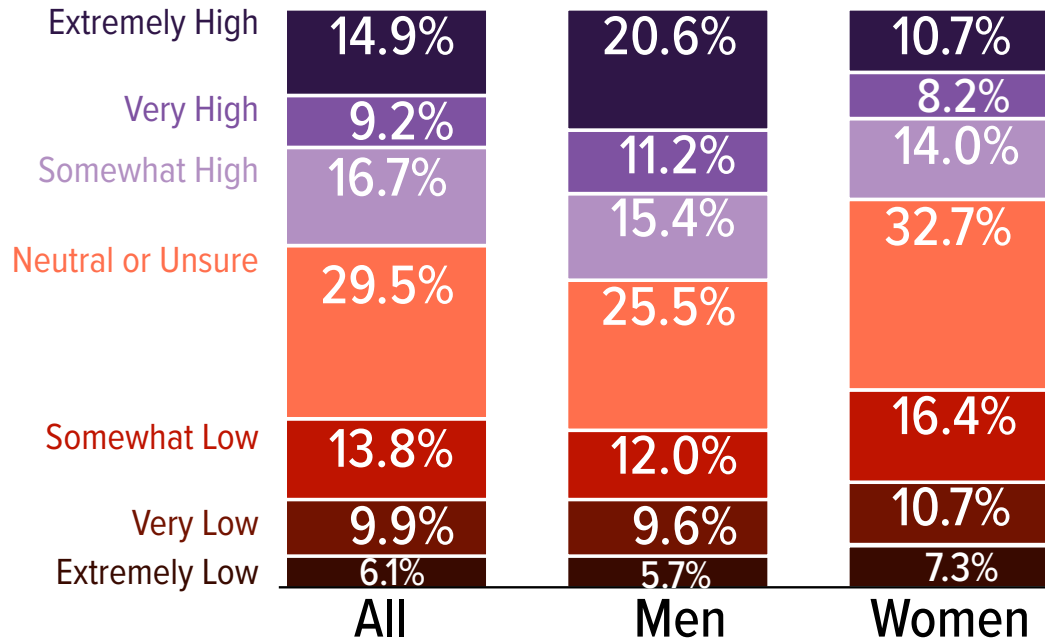


Source: Voicebot 2023



# Men Are More Confident Proactive Measures Are in Place

Perceived Deepfake and Voice Clone Readiness of Banks, Insurance, and Healthcare Providers by Gender



- Men are far more confident than women that banks, insurance companies, and healthcare providers have taken proactive steps to protect customers from deepfake and voice clone risks. Nearly half of men have at least “somewhat high” confidence that protections are in place. Those responses delivered a deepfake protection confidence score of +19.9% among men, while the same figure was -1.5% for women. This is a striking contrast.
- Less than 33% of women expressed positive confidence. This suggests women are more skeptical that these organizations are prepared for the risks, while men have relatively high readiness expectations.



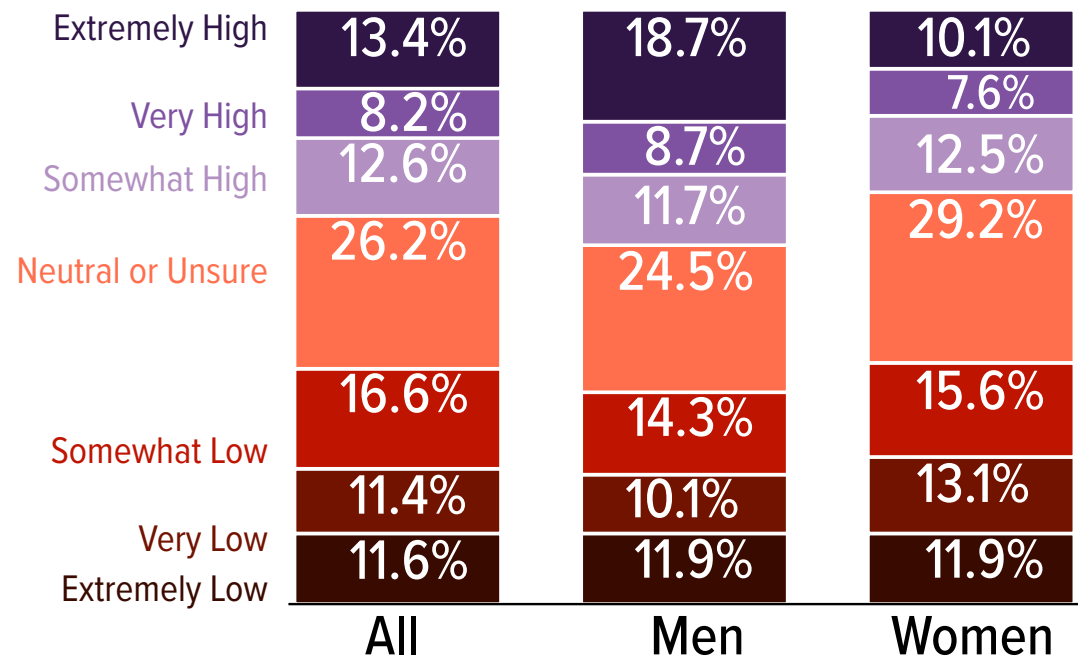
Source: Voicebot 2023





# Men Are Less Confident in News Media Protections

### Perceived Deepfake and Voice Clone Readiness of News Media by Gender



- Men express marginal confidence that the news media has taken proactive steps to automatically identify deepfakes and voice clones in their content, with a deepfake protection confidence score of just +2.8%. Of course, this is far more favorable than the score registered by women of -10.3%.
- The rising concern about how deepfakes and voice clones may impact the spread of disinformation and reduce trust in news seems to resonate more with women, with over 40% expressing low confidence in the industry’s readiness. This may be particularly relevant to U.S. television news where women are a majority of the audience according to Pew Research.

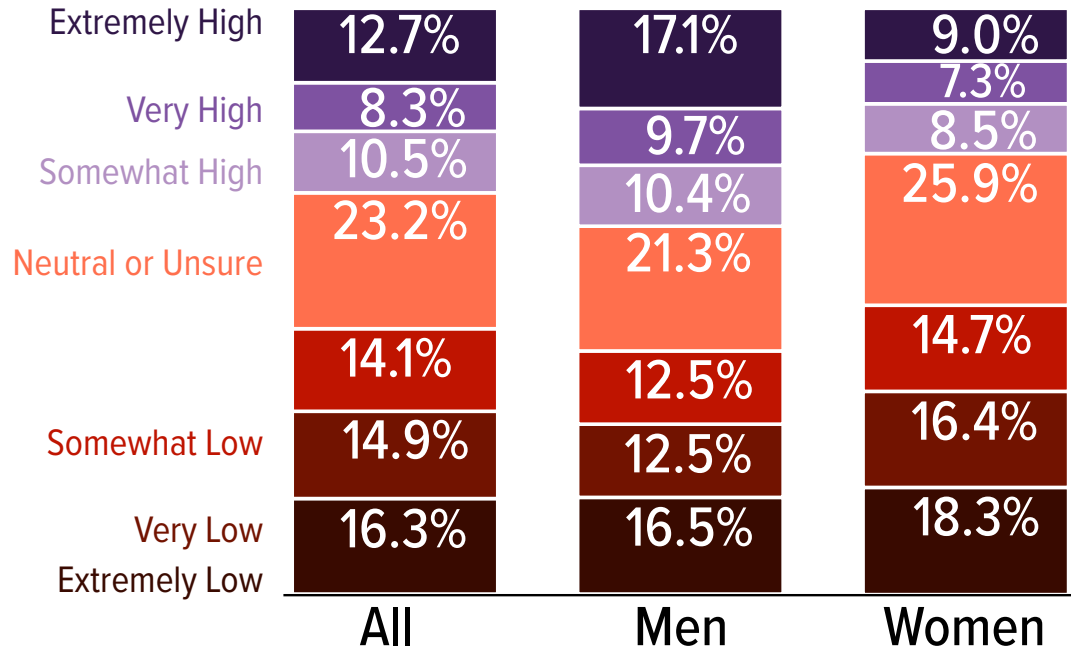


Source: Voicebot 2023



# Women Believe Social Media is Not Ready for Deepfakes

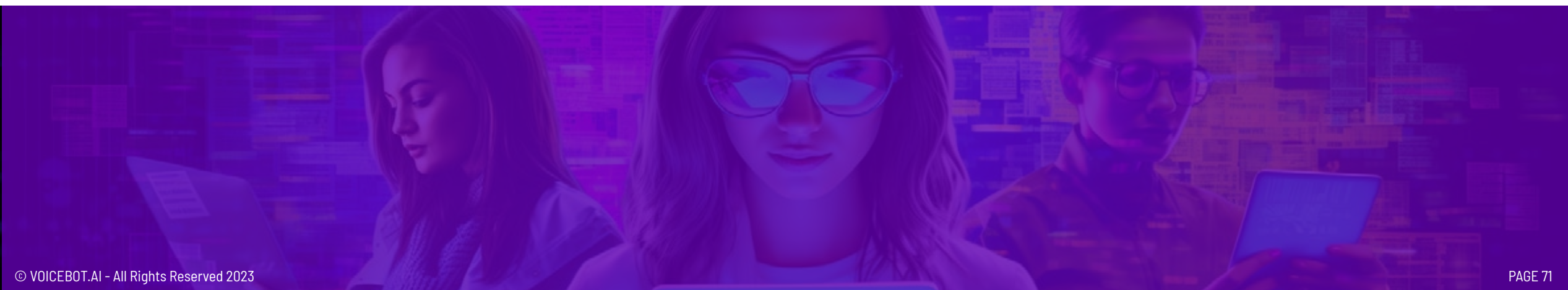
### Perceived Deepfake and Voice Clone Readiness of Social Media by Gender



Source: Voicebot 2023



- While women express skepticism about deepfake and voice clone protections across industries, they are least confident in the readiness of social media platforms. Their deepfake protection confidence score is -24.7%, far more negative than the tepid skepticism from men at -4.4%.
- A 2022 Reuters Institute study found that only 26% of U.S. adults trust news organizations overall, a three percentage-point decline in one year and down from 34% in 2018. Moreover, “only 41% now say they trust the news they themselves use.” That is down from 50% in 2019. News media organizations are already facing a skeptical public and audience. The rise of deepfakes may cause a further erosion of trust.





## Women Are Skeptical About Deepfake Readiness

**Deepfake Protection Consumer Confidence Score by Gender and Income**

|                                  | All    | Men   | Women  |
|----------------------------------|--------|-------|--------|
| Banking, Insurance, & Healthcare | 11.0%  | 19.9% | -1.5%  |
| News Media                       | -5.4%  | 2.8%  | -10.3% |
| Social Media                     | -13.8% | -4.4% | -24.7% |

- As you can see from the summary table, women are not confident that any of the industries we spotlighted in this report are taking proactive steps to protect consumers from deepfakes. While the sentiment is nearly neutral for banking, insurance, and healthcare, that is not the type of result most organizations aspire to. They would ideally like to have a strongly positive sentiment among their customers.
- Social media has a particular challenge ahead to gain consumer trust regarding deepfake and voice clone protection. However, the data show that women in every group are skeptical and some high profile incidents of unchecked deepfakes could bring these numbers lower.

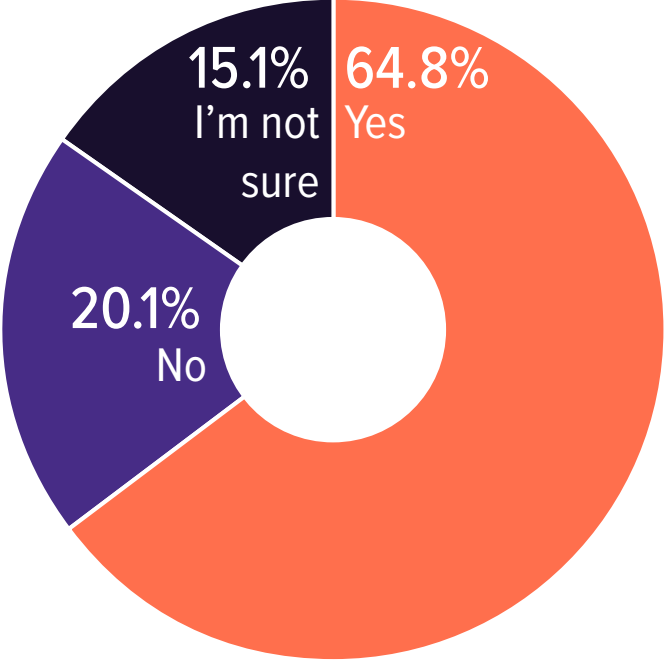


Source: Voicebot 2023



# There is Broad Concern About Workplace Impact

## Workplace Deepfake and Voice Clone Concern



- Nearly two-thirds of U.S. adults expressed concern about the inappropriate use of deepfakes or voice clones in the workplace. The expression of concern was higher among men than women by about 3.7 percentage points.
- The survey was not designed to clarify the source of the concern. However, several types of concerns may exist ranging from fraud attacks against the company or its customers, fraud attacks targeting a particular company employee, or inappropriate use of the technology that involves impersonating or embarrassing a co-worker.
- This result is considerably lower than the more than 90% who expressed some concern about the technologies more generally.

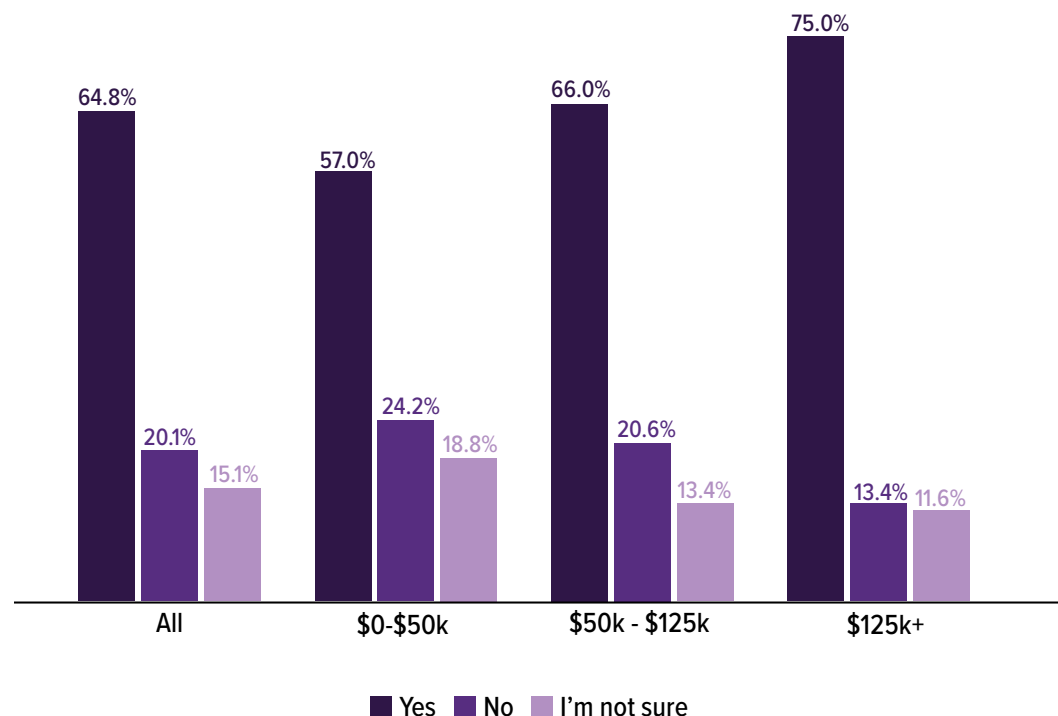


Source: Voicebot 2023



## Employee Concerns May Highlight Overlooked Issues

Workplace Deepfake and Voice Clone Concerns by income



- Similar to other findings, the concern about voice clones and deepfakes in the workplace rises with income levels. Only 57% of the sub-\$50,000 income cohort expressed concern about the technologies' impact in the workplace compared with 66% in the \$50,000 - \$125,000 range and 75% earning more than \$125,000.
- These results pose an interesting question for enterprise organizations. While some are contemplating what to do about protecting the company and its customers from the threat of fraud, they may be overlooking employee concerns that involve internal use cases that disproportionately impact white collar workers.

*\*For this question survey participants were provided with term definitions.*

The background of the slide is a dense, overlapping collage of newspaper clippings. Each clipping is semi-transparent and contains text, but the text is mostly illegible due to the low contrast and the orange overlay. The clippings are arranged in a somewhat chaotic, layered fashion, creating a sense of a large collection of information.

# Additional Resources

# Resources



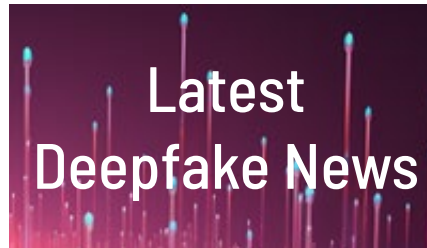
Fortify Your Business  
Against Deepfakes  
With Pindrop

LEARN MORE



Exposing the Truth  
About Zero-Day  
Deepfake Attacks

LEARN MORE



The Latest Deepfake  
& Voice Clone News  
and Information

READ NOW



The Daily Generative  
AI, LLM, and Synthetic  
Media Newsletter

READ NOW



GAIN Weekly  
Generative AI  
News Show

WATCH NOW

## More Deepfake Examples



U.S. Sen. Blumenthal Voice Clone



Simon Cowell Deepfake



Financial Fraud Deepfake

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