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**KRC** RESEARCH

# AI-READY OR NOT: ARTIFICIAL INTELLIGENCE HERE WE COME!

WHAT CONSUMERS  
THINK & WHAT  
MARKETERS NEED  
TO KNOW



# INTRODUCTION

In its most basic definition, “artificial intelligence” (AI) is intelligence that is exhibited by machines. It is frequently thought of as robotics but it actually encompasses a broader range of technologies, including many that are in wide use today. From speech recognition and search engines, to object recognition and gaming/learning systems, the application of AI is only going to grow in our daily lives.

While the broad definition encourages exploration and drives innovation, the term “AI” is increasingly applied to systems exhibiting a bare minimum of qualifying features or mimicking other features to appear more “intelligent.” This parallels the rapid growth of real world AI applications, resulting in varied consumer perceptions of what artificial intelligence actually is and presents an opportunity for ongoing consumer education.

There is no consensus on how to define AI. But this may work to AI’s advantage. According to Stanford University’s “One Hundred Year Study on Artificial Intelligence (AI100)” report, “Curiously, the lack of a precise, universally accepted definition of AI probably has helped the field to grow, blossom, and advance at an ever-accelerating pace. Practitioners, researchers, and developers of AI are instead guided by a rough sense of direction and an imperative to ‘get on with it.’”<sup>1</sup>

BCC Research, a market research company covering science and technology, reports that the global market for smart machines reached \$6.6 billion in 2015. The market should reach \$7.4 billion in 2016 and nearly \$15.0 billion in 2021, at a compound annual growth rate of 15.0% from 2016 to 2021.<sup>2</sup> Thanks to such optimistic forecasts, firms in the AI space are rapidly expanding. In the first half of 2016 alone, over 200 AI-focused companies have raised nearly \$1.5 billion in equity funding, according to technology market intelligence platform CB Insights.<sup>3</sup> According to an article in *The Economist*, large technology companies are snatching up AI startups and recruiting academic researchers. The piece also cites that in 2015, \$8.5 billion was spent on AI companies, nearly four times as much as in 2010.<sup>4</sup>

CEOs of top Fortune 500 companies are even beginning to weave AI into their talking points. In his essay published in *Slate* in June 2016, Microsoft CEO Satya Nadella laid out “10 Laws of AI.” In the same month, Amazon founder and CEO Jeff Bezos offered his insights on the potential of artificial intelligence to change everything from shopping to driving (2016 Code Conference).

***In AI-Ready or Not: Artificial Intelligence Here We Come!, Weber Shandwick examines AI from a consumer perspective, augmented with how well marketers are aligned with those perspectives and how they see things from a business vantage point.***

<sup>1</sup> “Artificial Intelligence and Life in 2030.” One Hundred Year Study on Artificial Intelligence: Report of the 2015-2016 Study Panel, Stanford University, September 2016

<sup>2</sup> BCC Research, “Smart Machines: Technologies and Global Markets,” 2016

<sup>3</sup> CB Insights, “Artificial Intelligence Explodes: New Deal Activity Record For AI Startups,” 2016

<sup>4</sup> “The Return of the Machinery Question,” *The Economist*, June 25, 2016 (print edition)



Our research addresses three questions that will be highly relevant to marketing and communications professionals as they and their companies become more deeply entrenched in AI:

- 1. What do consumers know about AI? What do they see as the upsides and downsides?**
- 2. What sources of information on AI do consumers trust and where are they getting their information?**
- 3. How well do marketers tap into the AI consumer zeitgeist? How AI-ready are they?**

It quickly became clear from our research that AI is transforming business. Nearly seven in 10 CMOs in our study (68%) report that their company is currently selling, using or planning for business in the AI era, and nearly six in 10 (58%) believe that within the next five years, companies will need to compete in the AI space to succeed. As for their own roles, 55% of CMOs expect AI to have a greater impact on marketing and communications than social media ever had. This is a remarkable statement coming from a profession turned upside down by social media in the past 10 years.

### How We Did the Research

Weber Shandwick surveyed two groups of respondents in June 2016 in partnership with KRC Research: consumers and executives. For ease of reading, we use the term “global” to describe the total samples of consumers and executives despite the limited number of markets surveyed.

1. 2,100 adult consumers in the U.S., Canada, the UK, China and Brazil were surveyed online. This segment represented the general population of each of those markets.
2. 150 executives (CMOs) in the U.S., the UK and China responsible for the oversight and execution of marketing or branding activities at their organizations were surveyed by phone. All respondents were employed by companies with annual revenues of at least \$500 million USD and comparable levels in other markets. They hailed from a variety of industries.

The survey first established a baseline of consumers' first impressions about AI and AI-associated brands through open-ended questions, then presented respondents with the following definition of AI before proceeding with the full questionnaire:

*“Artificial Intelligence, or AI, is a field of technology designed to create computers, machines and software that are as smart as humans, and which are able to perform the same tasks that normally require human intelligence.”*

The following report describes our research findings on consumer beliefs, attitudes and expectations of AI. The report also provides a look at the AI Vanguard, those consumers who are above average when it comes to AI knowledge, acceptance and product adoption. We have summarized our learning into Eight Revelations. Each Revelation is supplemented with CMO perspectives on the same issue. In some cases, we find that CMOs are well-aligned with consumer opinion. But sometimes, they miss the mark. Since there is so little research on consumers' take on AI at this point in time, Weber Shandwick wanted to arm CMOs and other communicators with early consumer insights so they have an edge on the future.

*“As those of us in the marketing and communications industry know, technology disruption brings challenges but also opportunities to master change. With popular culture espousing artificial intelligence as machines replacing jobs, robots taking over the world and drones causing mayhem, Weber Shandwick instead decided to capture the perspectives of the global buying public, contrasting them to marketer expectations. The result is a roadmap for successfully engaging in the AI era. Right now, artificial intelligence can best be described as superficial intelligence for most people. Now might just be the opportune time to clearly define AI and explain its potential.”*

**Gail Heimann, President, Weber Shandwick**

# BENCHMARKING CONSUMER AI KNOWLEDGE:

## EIGHT REVELATIONS

REVELATION

1

Consumers Hold Superficial AI Intelligence.

REVELATION

2

AI Forecast Sunny. Media Shines a Bright Light.

REVELATION

3

Consumers Put Their Money on Experts and Own Personal Touch.

REVELATION

4

In AI They Trust...for Many Tasks.

REVELATION

5

AI Consumer Benefits Plentiful, Keep Them Coming.

REVELATION

6

Consumer Knowledge Breeds AI Optimism.

REVELATION

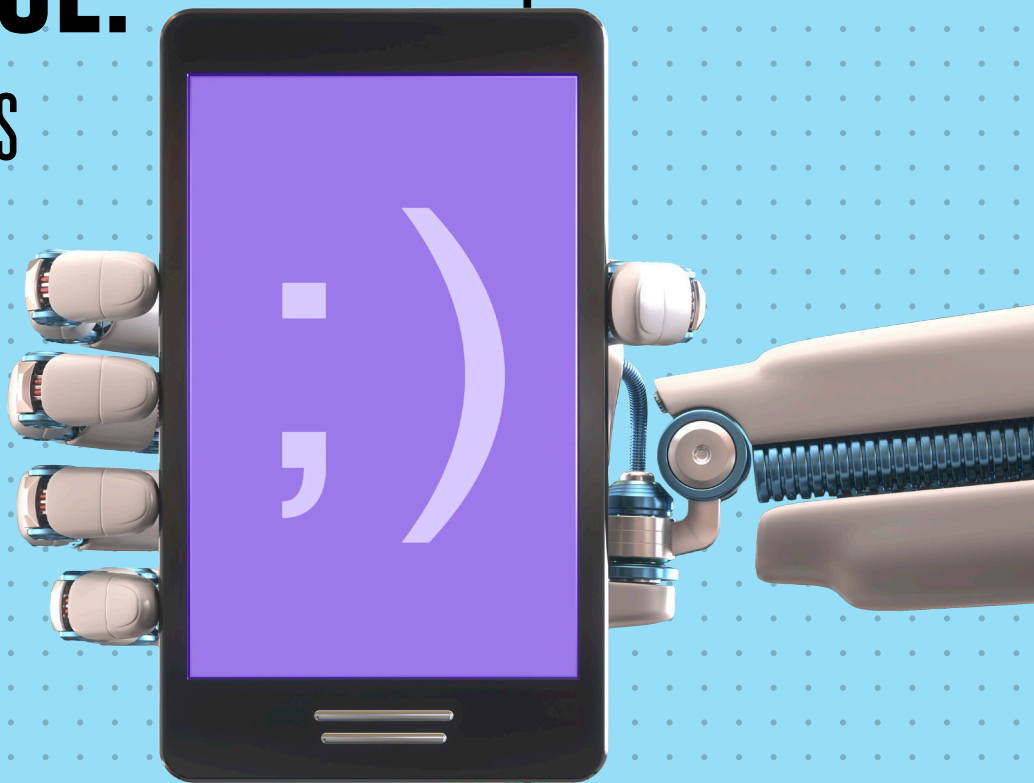
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AI Adoption Meets Trepidation.

REVELATION

8

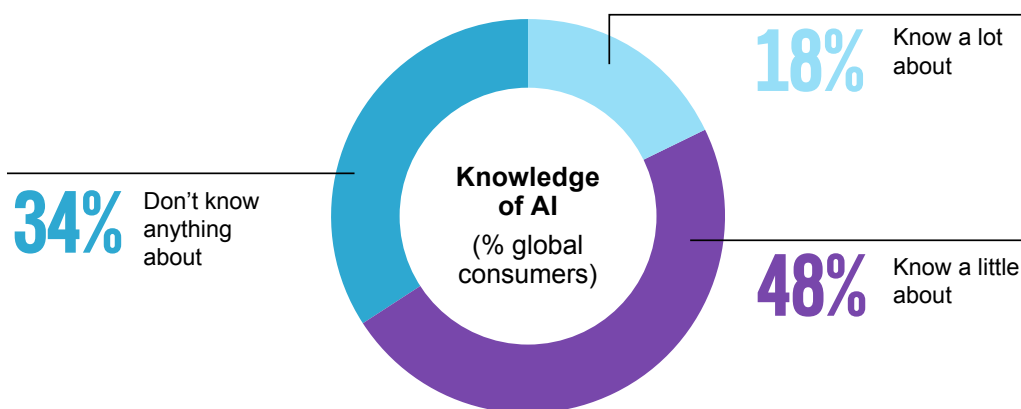
Consumer AI Positivity Buster: Job Losses.



# REVELATION 1

## CONSUMERS HOLD SUPERFICIAL AI INTELLIGENCE.

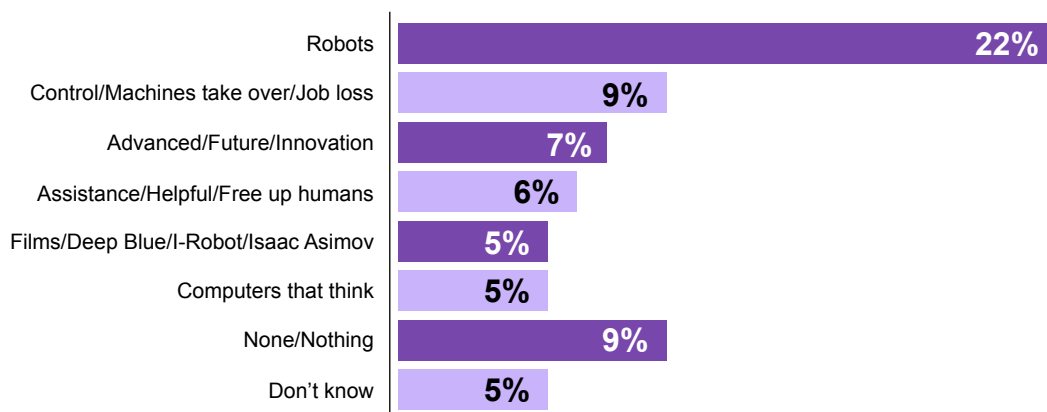
“Artificial intelligence” has entered the general public’s consciousness. Two-thirds (66%) of global consumers surveyed say that they know a lot about AI (18%) or a little (48%). About one-third (34%) admit they know nothing.



However, few consumers are able to name an AI brand leader. Most credit goes to IBM (17%), Google (13%) and Apple (12%). Those consumers who report to know a lot about AI are slightly more likely to name brands, with IBM (21%), Google (17%), Apple (11%) and Microsoft/Windows (11%) their top picks for AI leaders.

Global consumers’ first impressions of AI are also vague. The most common unaided association is “robots,” as mentioned by 22% of consumers.

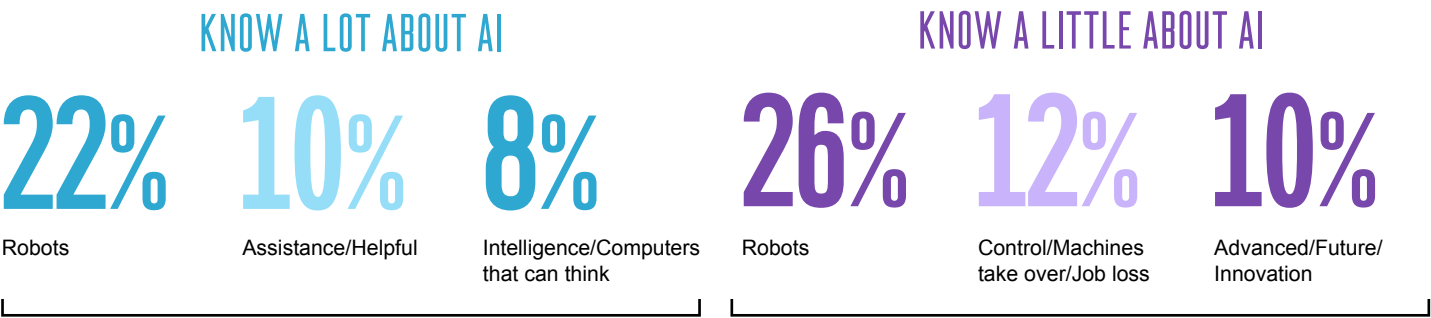
### First Impressions of AI, Asked Open-Endedly (% global consumers)\*



\*Mentions of 5% or higher are shown

Even those who are most knowledgeable about AI say that the first thing that comes to mind when they hear the term artificial intelligence is robots. This seems to be an ingrained perception that will be challenging to overcome.

First Impressions of AI, Asked Open-Endedly (% global consumers, top 3 mentions)

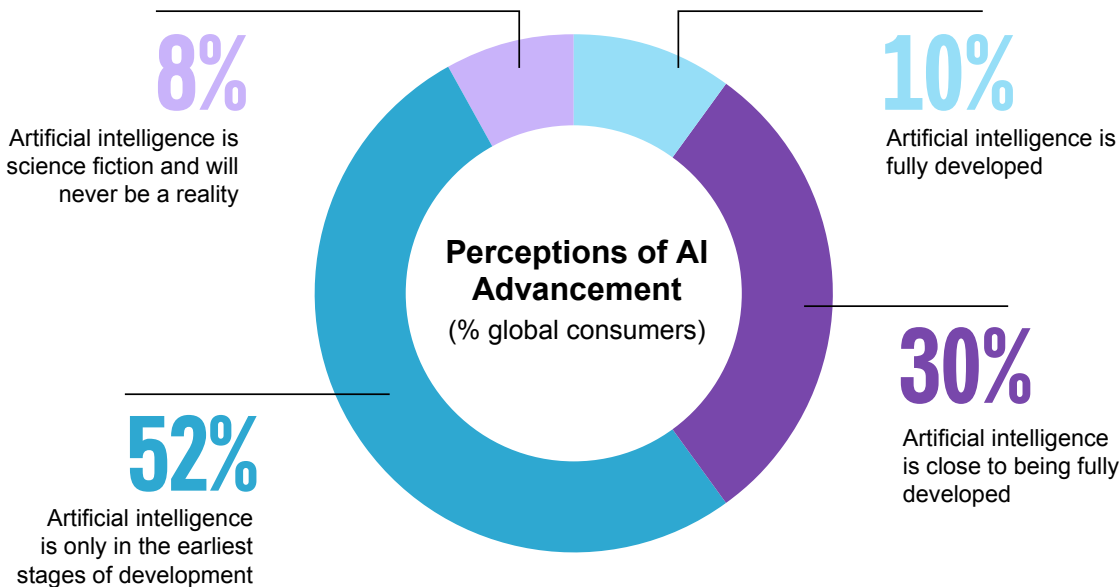


These “in the know” consumers are the AI Vanguard and, as we will reveal at length later in this report, are a critical segment for hastening acceptance of the AI movement among mainstream consumers.

Probably because consumers so strongly associate AI with robots, many don’t even realize that they are already using some form of AI. Although only one in five (22%) believe they own or use an AI product, 77% have a smartphone, 47% have GPS and 41% own a smart TV. Many AI-based

technologies are already in widespread use by consumers, but the tight link to robots creates a misperception that AI is not part of today’s everyday technology.

Consumers are aware that AI is already here or soon coming. Only 8% of global consumers think AI is science fiction and will never materialize. The rest (92%) expect AI to arrive eventually: 40% think AI is fully developed or about to be and 52% think it is in its earliest stages of development.

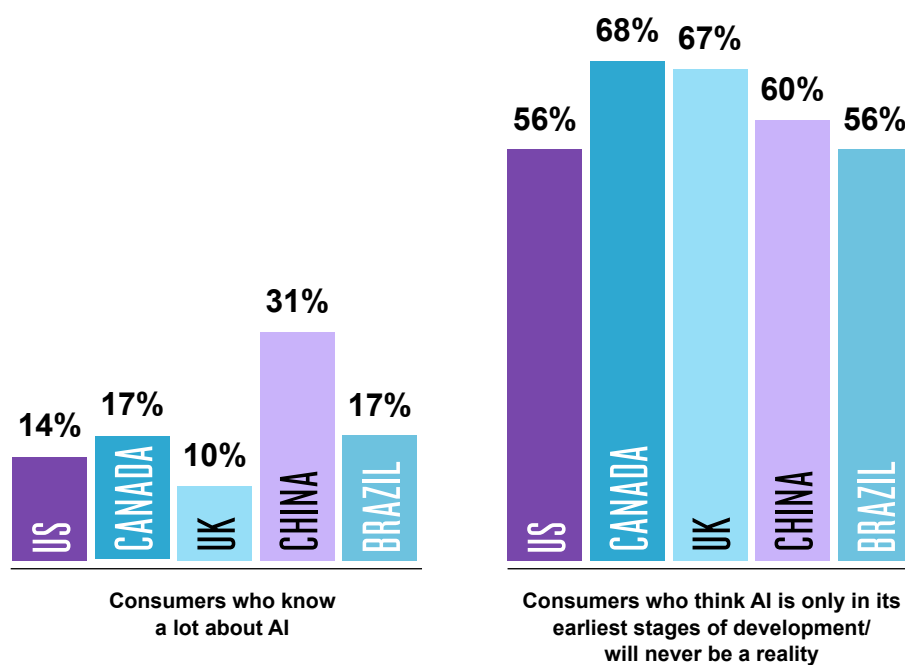


## As Marketers See It: Broadening the Baseline Understanding

CMOs know more about AI than the average consumer, with four in 10 reporting to know a lot about AI (vs. 18% of consumers). Yet this level of knowledge is not enough given the accelerated development pace of the technology. Consider this: one-third (32%) of CMOs currently in the AI business know a little or nothing about AI and half (49%) of those ramping up for AI know a little or nothing. It will be difficult for marketers to educate consumers about AI if they themselves are not confident in their own understanding of the technology. Additionally, the association with robots is a narrow understanding of the technology that is permeating our lives. For marketers with AI-powered products to sell, critical dissociation from robotics is required. The marketer's challenge will be to broaden consumer understanding beyond robotics.

## Regional Comparison

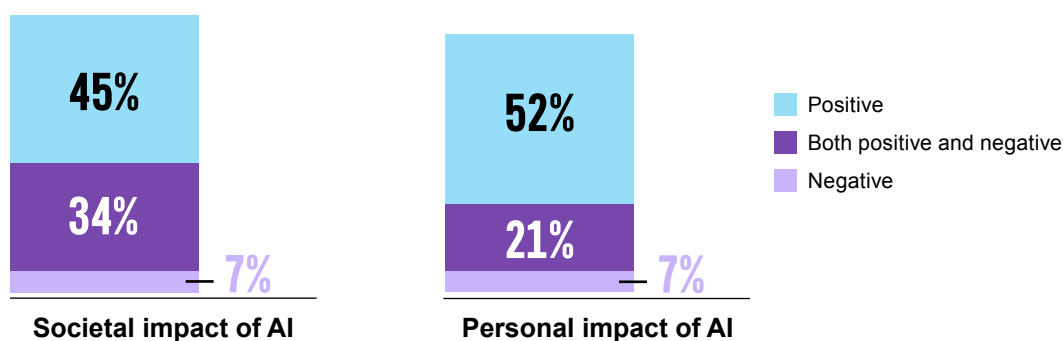
Chinese consumers report having the deepest knowledge of AI. Canadian and UK consumers are most likely to believe that AI is only in its earliest stages of development or that it will never be a reality.



# REVELATION 2 AI FORECAST SUNNY. MEDIA SHINES A BRIGHT LIGHT.

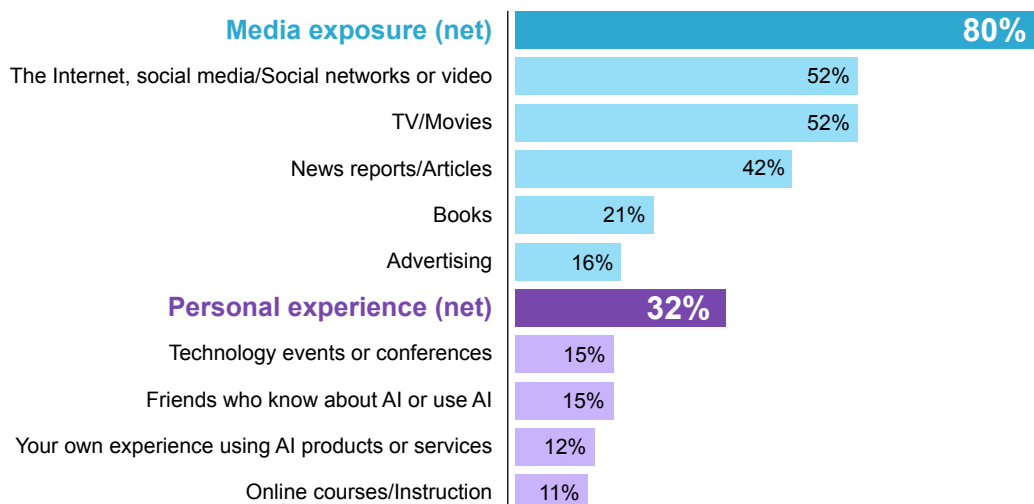
Consumers around the world have a fairly optimistic view of AI's potential. They are six times more likely to see AI's impact on society as positive than negative (45% versus 7%, respectively). Similarly, consumers expect an even more positive impact on their personal lives – seven times more likely – than negative impact (52% versus 7%, respectively).

**AI's Impact Will Be...** (% global consumers)



The media is helping to shape this flattering outlook of AI. When asked where their overall impression of AI comes from, 80% of global consumers mention some form of media – a mix primarily of Internet, social media, TV, movies and the news. Media exposure trumps personal experience.

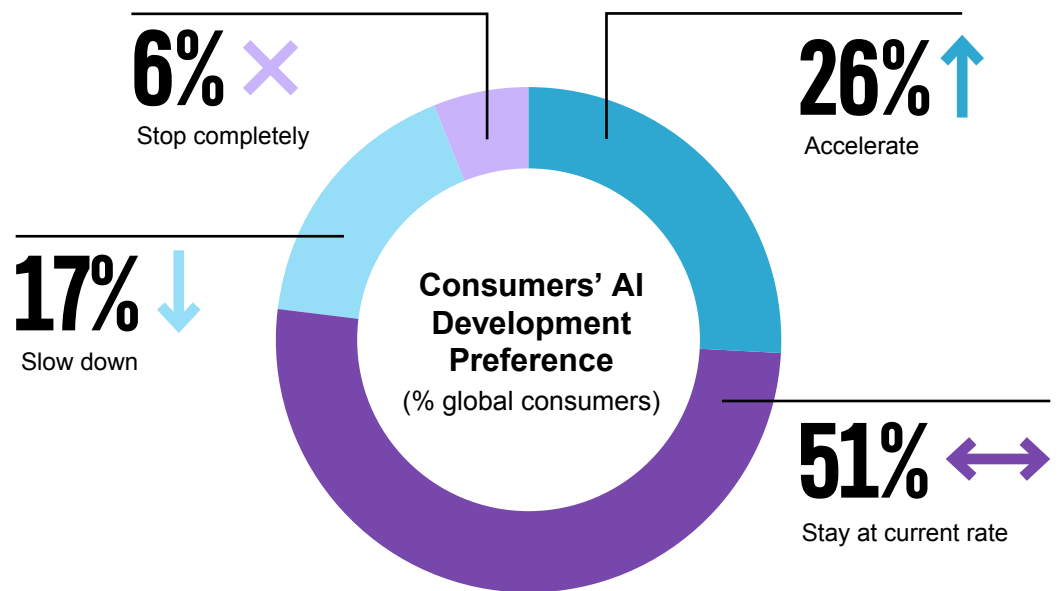
**Sources of AI Impressions** (% global consumers)





AI is quickly entering consumer mindsets through frequent exposure to AI. Nearly six in 10 (59%) consumers worldwide said they had seen or read something in the media about AI or had some personal experience with it within the 30 days prior to taking our survey. The vast majority of these consumers (82%) report that their recent interaction had left a positive impression. Curiosity about AI seems to be accelerating their awareness and interest of AI.

Most (77%) would like AI's development to accelerate or remain at its current pace. Only 23% would like it to slow down or stop altogether. Based upon their perceptions today, consumers seem ready for AI to be a reality.



### As Marketers See It: Sky Is the Limit!

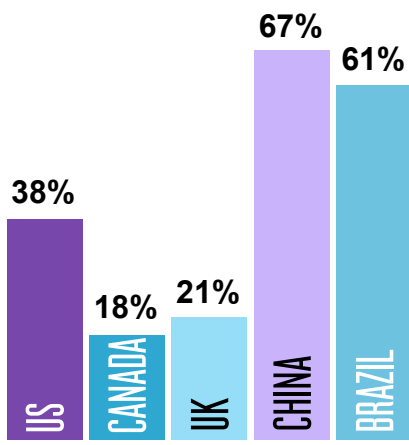
When it comes to understanding global consumer acceptance of AI, marketers have some catching up to do. While consumers are expecting AI to be on their doorsteps soon, 60% of CMOs believe that AI is not yet ready for acceptance by the general population. Marketers now know that consumers are taking the lead on AI from the media (and from personal experience to a lesser extent) and have a roadmap on where to reach them.

## Regional Comparison

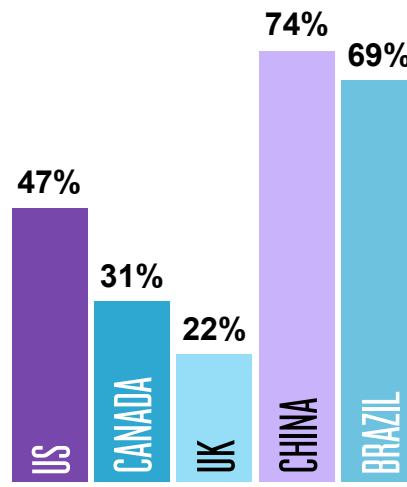
Chinese and Brazilian consumers have the most optimistic views about the impact that AI will have on both society and their personal lives. Canadian and UK consumers are the least optimistic. U.S. consumers fall in the middle. Chinese and Brazilian consumers are also most likely to want the development of AI to either accelerate or stay the same.

China and Brazil who have recently been exposed to AI report the most positive tone of exposure (92% and 90%, respectively), followed by U.S. consumers (76%). UK consumers report lower than average exposure positivity (63%), but it is far from negative. Canadian consumers are least likely to report a positive tone (37%).

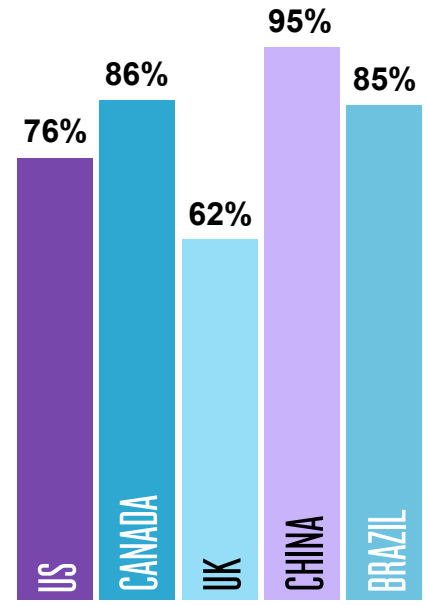
Chinese consumers are most likely to report that their impressions of AI come from the media (95%) and have also received the most exposure to AI information in the month prior to taking the survey (86%). Consumers in



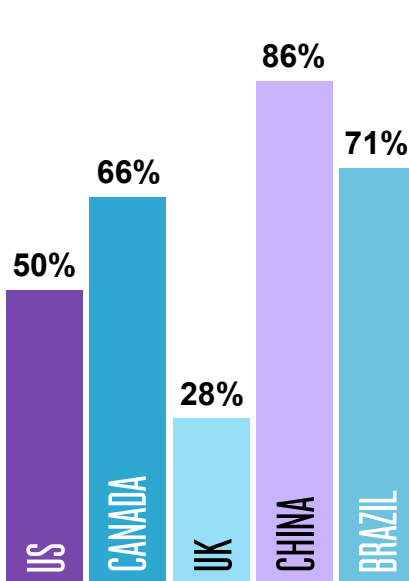
AI's impact on society will be positive



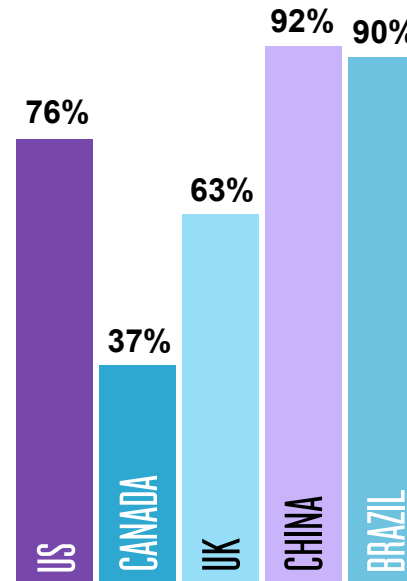
AI's impact on self will be positive



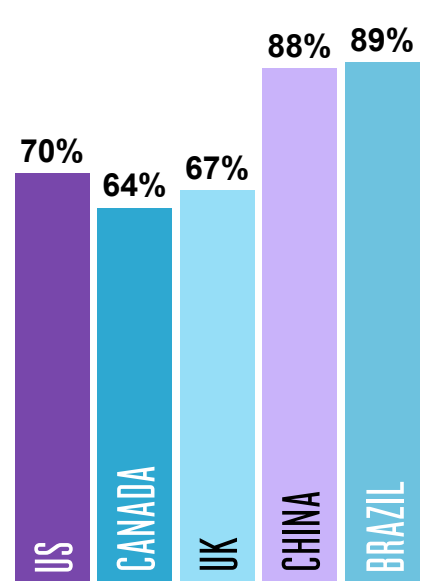
Primary impression of AI comes from the media



In past 30 days, exposed to AI in media or had personal experience with it



Among those recently exposed to AI information, tone of AI exposure was positive



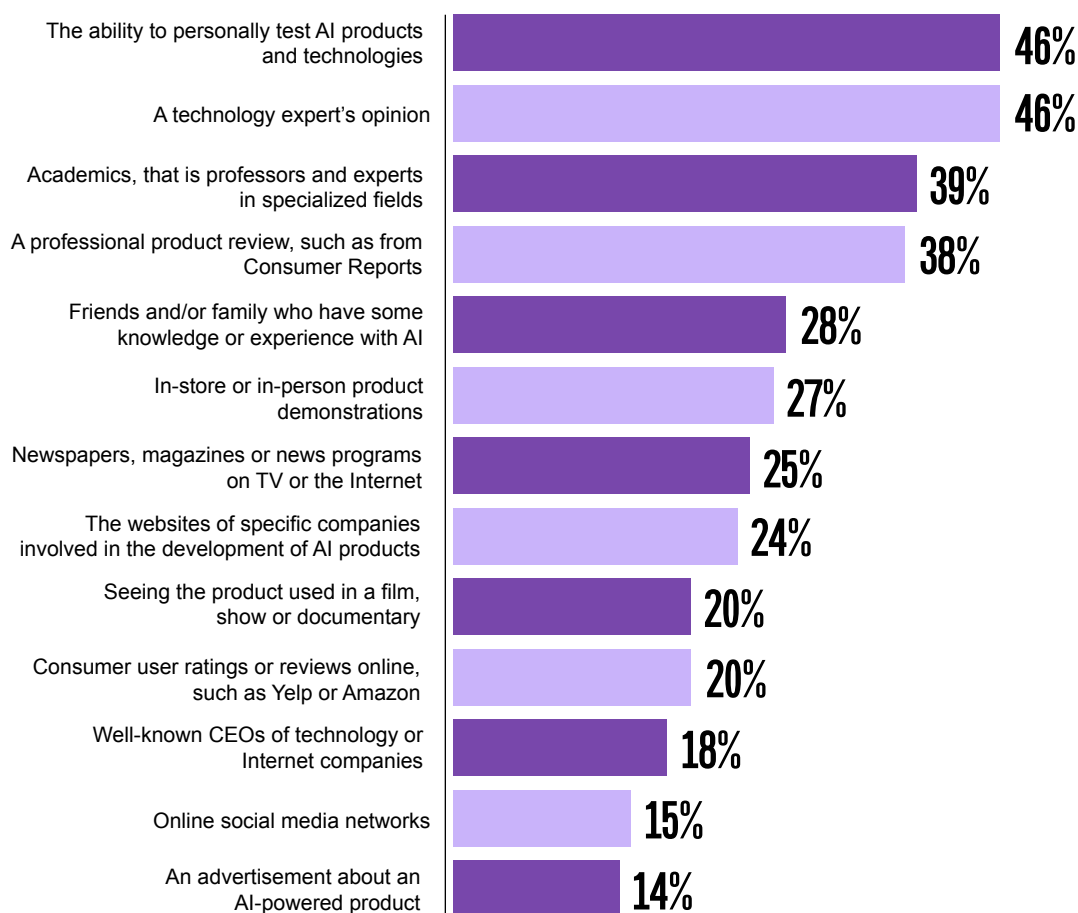
Consumers who would like development of AI to accelerate/stay the same

# CONSUMERS PUT THEIR MONEY ON EXPERTS AND OWN PERSONAL TOUCH.

When it comes to trusting information about AI, global consumers report that hands-on testing, technology experts and academics from the AI field will provide the most credible information. Professional product reviews will also increase consumer trust of AI.

Most interesting, consumers give greater weight to their own experience and professional-type sources than to personal relationships, including their social networks (which rank very low as a reliable source on AI information) and consumer-generated reviews.

## Most Trustworthy Sources for AI Information (% global consumers)



## As Marketers See It: Don't Neglect Experts or the Media

CMOs are highly attuned to the sources consumers say they will trust for AI information. They agree that it will take hands-on experience for consumers to accept AI along with professional influence. However, they severely underplay the importance of the media to consumers and, to a lesser extent, technology experts. CMOs will need to think twice about leveraging these resources if they expect success from their strategies to promote products and services that are AI-based.

## Regional Comparison

The top sources of trust for information about AI are generally consistent across regions. The ability to personally test AI products and technologies is among the top most trustworthy sources in each market and in Canada it far surpasses other sources. Professional product reviews are valued in the U.S., Canada and China. Academics are a top source of trust in every market but the U.S.

### Most Trustworthy Sources for AI Information (among consumers)

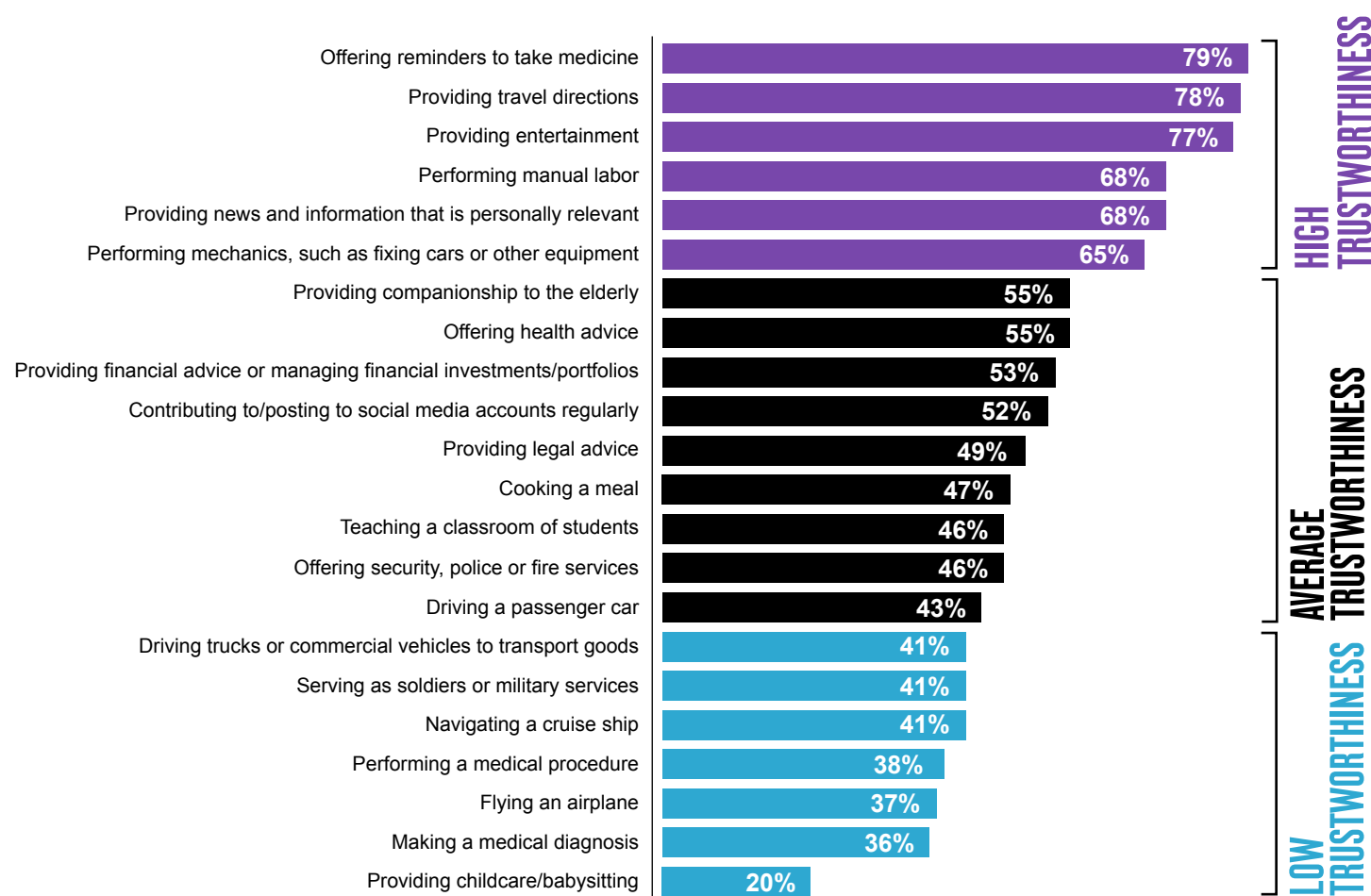
	<b>#1 RANKED</b>	<b>#2 RANKED</b>	<b>#3 RANKED</b>
<b>US</b>	<b>45%</b> Professional product review	<b>43%</b> Technology expert's opinion	<b>38%</b> The ability to personally test AI products and technologies
<b>CANADA</b>	<b>63%</b> The ability to personally test AI products and technologies	<b>49%</b> Professional product review	<b>44%</b> Academics
<b>UK</b>	<b>45%</b> The ability to personally test AI products and technologies	<b>44%</b> Technology expert's opinion	<b>39%</b> Academics
<b>CHINA</b>	<b>45%</b> Professional product review	<b>44%</b> The ability to personally test AI products and technologies	<b>39%</b> Academics
<b>BRAZIL</b>	<b>60%</b> Technology expert's opinion	<b>56%</b> The ability to personally test AI products and technologies	<b>44%</b> Academics

# REVELATION 4 IN AI THEY TRUST...FOR MANY TASKS.

Global consumers trust AI with many tasks. Two-thirds or more trust AI with handling medication reminders, travel directions, entertainment, targeted news and manual labor and mechanics. AI is trusted by 50% or more consumers to provide elder care, health advice, financial guidance and social media content creation. Other tasks that have an average level of trustworthiness include providing legal advice, cooking, teaching, offering security, police or fire services, and driving.

However, there are some tasks that consumers believe should not be turned over to AI. Those typically have to do with risks such as performing medical procedures, flying airplanes, making medical diagnoses and childcare. It is surprising that consumers have low trust in activities that are already successfully handled by AI, including flying planes and navigating ships.

**Tasks Trusted by Consumers for AI Performance (% global consumers)**





## As Marketers See It: Closely Aligned on Trusted AI Tasks

For the most part, CMOs are in line with consumer sentiments on trustable AI activities, with a few exceptions that CMOs have much lower trust in: using AI for legal advice, financial advice/planning, and some civil services such as security, police and fire.

## Regional Comparison

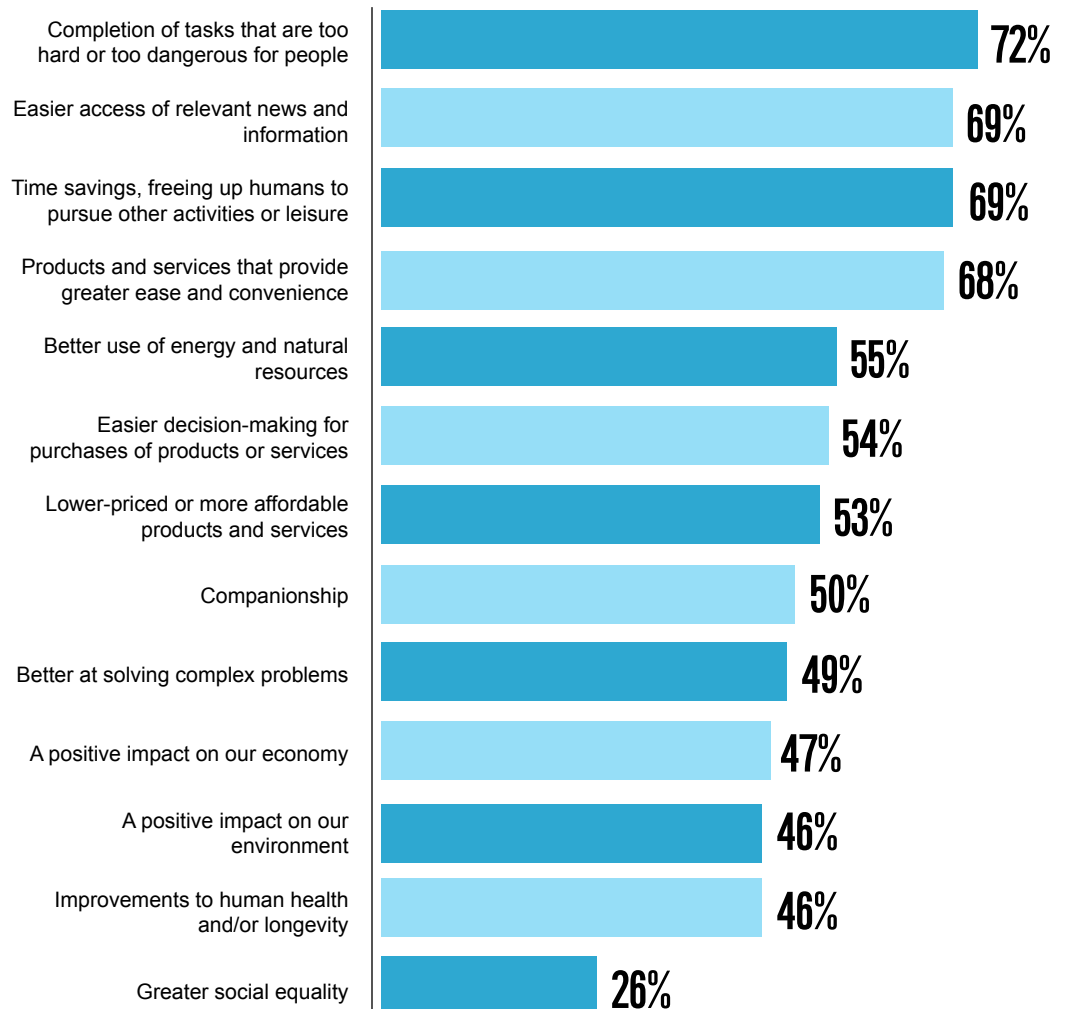
Overall, Chinese consumers are most trusting of AI to perform a variety of tasks and UK consumers are the least trusting. Consumers in Canada, the UK and China are most trusting of AI to provide travel directions. Consumers in the U.S. and Brazil are most trusting of AI to offer reminders to take medicine. U.S. consumers also cite providing entertainment as their most trusted task.



# AI CONSUMER BENEFITS PLENTIFUL, KEEP THEM COMING.

Global consumers expect many benefits to come from AI. Topping their list are the ability to take on dangerous tasks, save time, provide better access to relevant information, and offer products that provide convenience. Consumers also see the social impact benefits that AI can bring to energy and natural resource conservation, and to some extent the environment. One out of two consumers report that AI will provide companionship, lower prices and make purchase decisions easier.

## Benefits of AI (% global consumers)



Global consumers do not see AI as erasing social inequities. It is the least-frequently cited potential benefit of AI. This perspective is reinforced when we asked respondents to choose between two opposing positions: “AI will be accessible only to wealthy people” versus “AI will be accessible to everyone.” Two-thirds of consumers (66%) chose the former versus the latter (34%). Despite adoption of AI technologies across income levels in many of the markets surveyed, AI is not anticipated to remedy social inequality. In fact, lower-income consumers are less likely than higher-income consumers to say that AI will lead to greater social equality and are more likely to say it will be accessible only to wealthy people.

## WHEN IT COMES TO THE BENEFITS OF AI EXPECTED BY MEN VERSUS WOMEN,

we find that men are more likely to agree with every potential benefit that we listed in our survey. Benefits with the widest gaps between men and women are:

EASIER DECISION-MAKING FOR  
PURCHASES OF PRODUCTS OR SERVICES

60% MEN

48% WOMEN

LOWER-PRICED OR MORE AFFORDABLE  
PRODUCTS AND SERVICES

58% MEN

48% WOMEN

COMPANIONSHIP

55% MEN

44% WOMEN

### As Marketers See It: Almost Eye to Eye

When we asked them to assess what the benefits of AI will be to consumers, CMOs are generally in line with what consumers expect to happen. Being marketers, it's not surprising that they think that more targeted news and information is the top consumer benefit of AI along with easier access to relevant news and information. Fortunately, consumers also anticipate that AI will enable better access to information that is most relevant to them. Also, like consumers, CMOs do not see AI as the great social balancer and this finding does not bode well for a more inclusive society that may be increasingly demanding of equal access to goods and services.

Some gaps exist, however, between consumer expectations of AI's advantages and what CMOs consider to be consumer advantages. CMOs over-anticipate consumers' expectation of lower prices. They rank it second in the line-up of benefits while consumers place it at number seven. Time-savings and convenience are more readily apparent to consumers than lower prices, probably because of the robot association. If, in fact, more affordable goods and services are a real outcome of AI, then this is a benefit that consumers will be happy to know about since it is not obvious to them.

CMOs need to be careful of the features they leverage in their marketing. They need to either avoid overselling on payoffs that are not feasible, or they need to change perceptions. Similarly, they do not want to miss an opportunity to leverage an advantage that consumers expect and that the product can deliver on.

One of the biggest discrepancies is regarding better use of natural resources. As global climate change continues to dominate world agendas, this might be an opportunity for marketers to acknowledge and, when possible and authentic, include in their messaging.

## Regional Comparison

Overall, Chinese and Brazilian consumers are more likely than those in other markets to recognize benefits of AI. In the U.S. and the UK, the most anticipated benefit of AI is completion of tasks that are too hard or too dangerous for people. Consumers in Canada and Brazil see easier access of relevant news and information as the top benefit. Chinese consumers cite time savings as their top benefit.

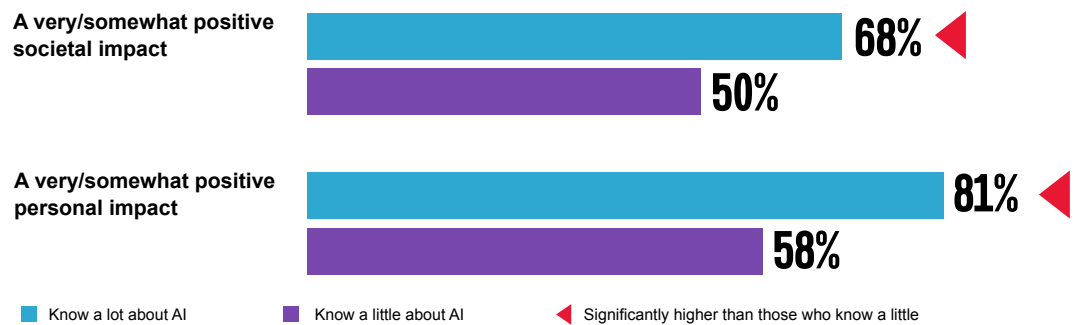
### Anticipated Benefits of AI (among consumers)

	#1 RANKED	#2 RANKED	#3 RANKED
US	71% Completion of tasks that are too hard or too dangerous for people	65% Time savings	63% Products and services that provide greater ease and convenience
CANADA	73% Easier access of relevant news and information	67% Completion of tasks that are too hard or too dangerous for people	54% Time savings
UK	56% Completion of tasks that are too hard or too dangerous for people	53% Time savings	49% Easier access of relevant news and information
CHINA	89% Time savings	88% Products and services that provide greater ease and convenience	83% Completion of tasks that are too hard or too dangerous for people
BRAZIL	82% Easier access of relevant news and information	80% Completion of tasks that are too hard or too dangerous for people	79% Products and services that provide greater ease and convenience

# CONSUMER KNOWLEDGE BREEDS AI OPTIMISM.

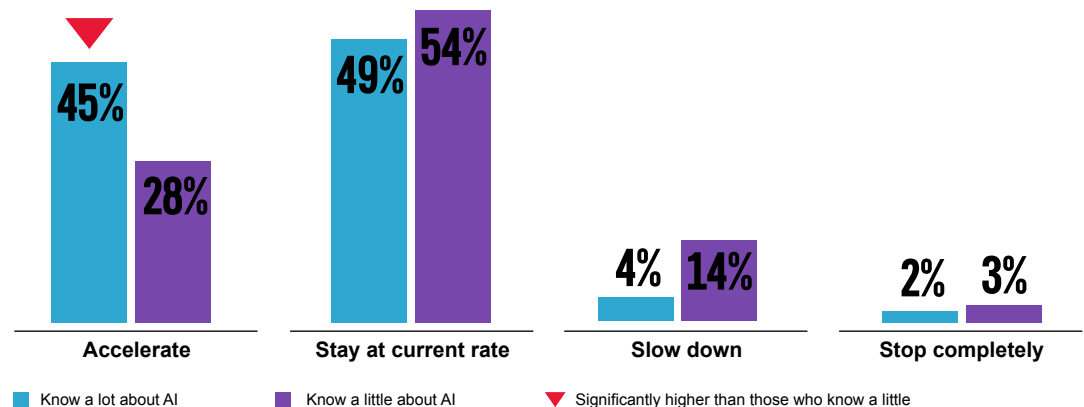
As addressed earlier, nearly half of consumers (48%) have a little knowledge about AI, and 18% — the AI Vanguard — report they know a lot about AI. There are deep differences between these two groups in terms of their comfort level with AI. The more consumers know, the greater their positivity about AI's impact on society and themselves personally. In both cases, the AI Vanguard is significantly more likely to expect good things from AI.

## Consumer Expectations of AI's Impact

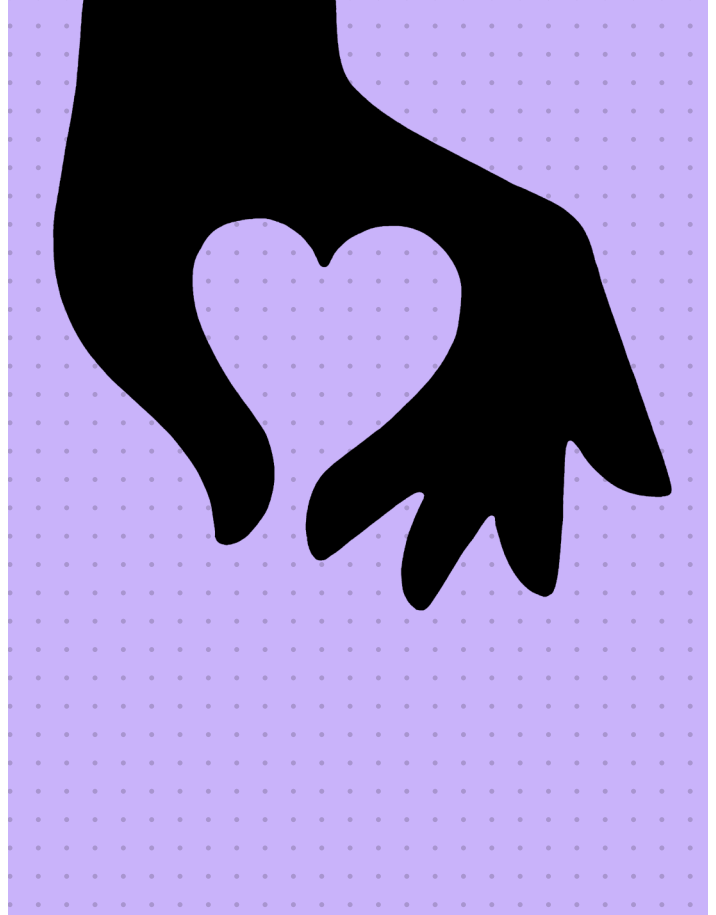


The AI Vanguard's positivity about widespread AI adoption can also be seen in the group's strong desire to see the pace of AI development accelerate. Nearly half (45%) would like to see it accelerate, which is significantly higher than that expressed by those who know less about AI.

## Consumers' AI Development Preference







## As Marketers See It: Positivity Over Negativity

Four in 10 CMOs (39%) expect that it will be difficult to communicate the benefits of AI to consumers, compared to 25% who believe it will be easy. Approximately one-third (31%) say it will be neither difficult nor easy, and 5% are unsure.

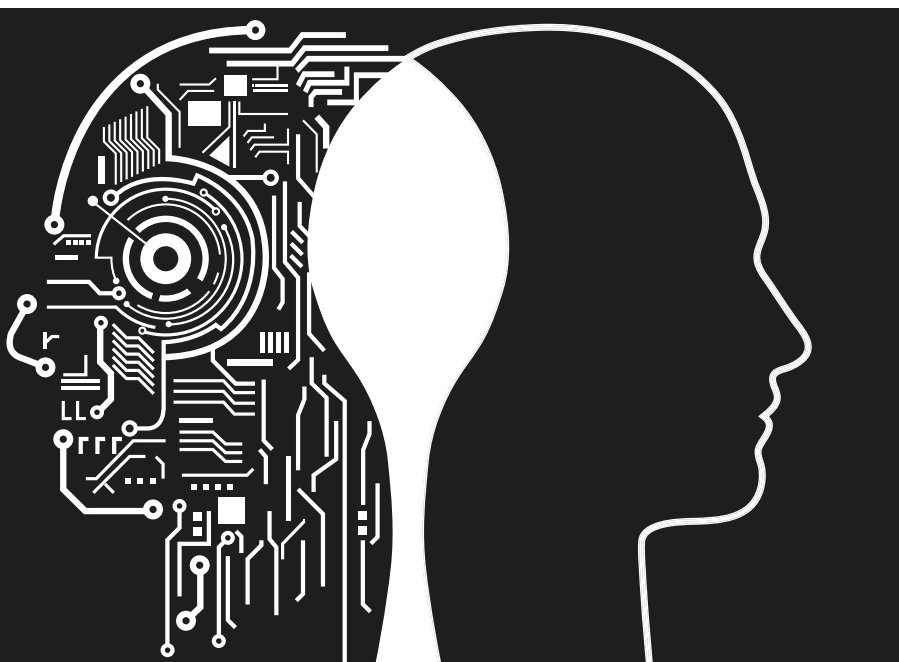
Marketers will need to creatively engage consumer segments on understanding AI benefits. Since research has shown that negative perceptions have a greater effect on consumers than neutral or positive ones (“the negativity bias”), marketers will have to work harder and more strategically to over-communicate the upsides of AI to overcome the more easily entrenched downsides.

# AI ADOPTION MEETS TREPIDATION.

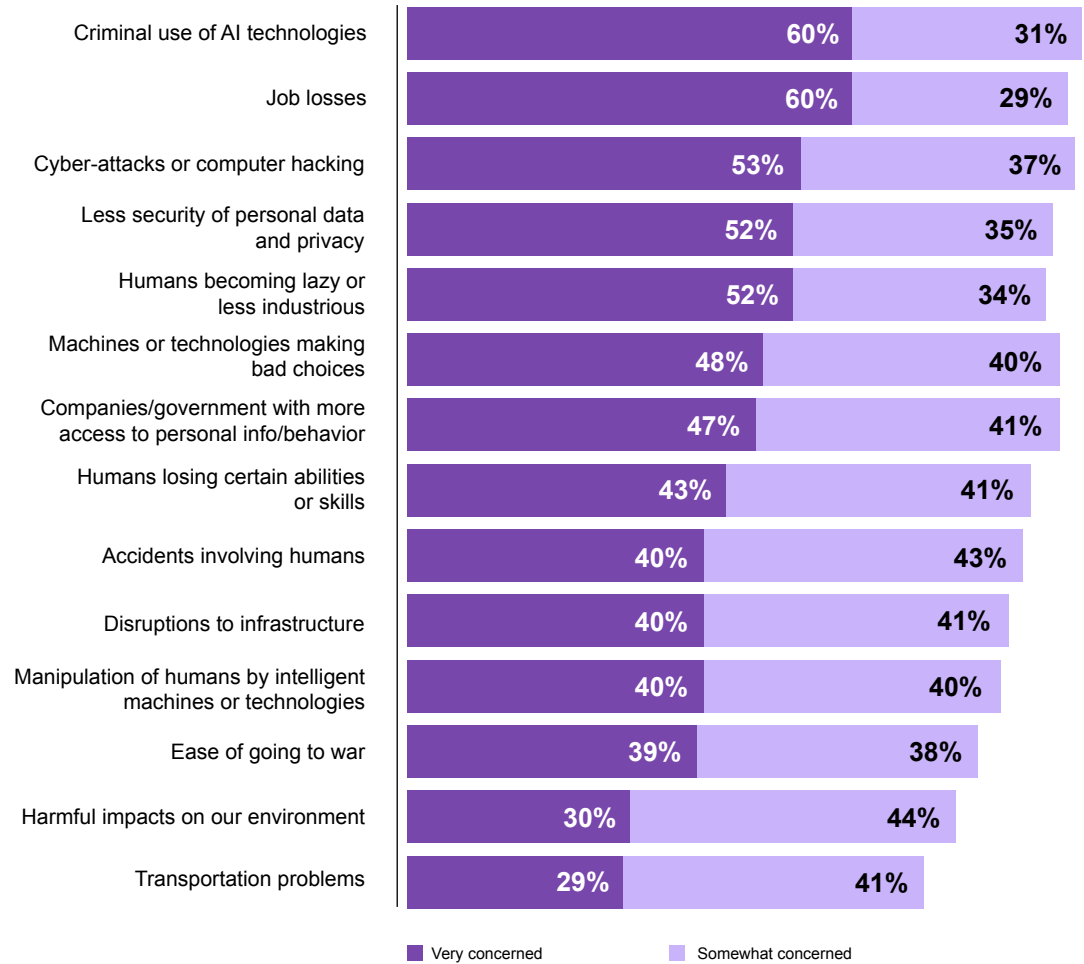
Despite an overall acceptance of AI in their present and future lives, nearly two-thirds of global consumers (64%) register concern about AI, although mostly at a moderate level (49%). For companies in the AI space, it is a very positive finding that more than one-quarter of consumers (28%) are not concerned at all, a rate nearly twice that of those very concerned (15%).

When those who register a level of concern are asked on an open-ended basis what their specific concerns are, consumers focus primarily on the impact on humans. The concern for jobs and how AI might replace people are top-of-mind issues, as noted by more than one-quarter of concerned respondents (28%).

Presented with a list of potential negative effects of AI, most consumers – 70% or more – are at least somewhat concerned with every AI potential problem raised. It is worth noting here that prior to providing this list, consumers were not very concerned or easily able to articulate their discomfort with AI beyond job losses. When exposing potential issues, however, criminal behavior and cyber-attacks rise to the top as critical concerns along with job losses. By giving global consumers a list of potential downsides of AI, the research unearthed a deep vein of concern over loss of privacy and government interference with personal information. While every item on our list is a concern for consumers, the magnitude of distress varies. The least common concerns that surface are AI's harmful impact on the environment and transportation.



## Potential Outcomes of AI that Consumers Are Concerned About (% global consumers)



## As Marketers See It: Agreement Prevails

The majority of CMOs correctly believe that consumers are concerned about a multitude of AI-related negative events. Generally, their perceptions align with real consumer concerns: job loss, cyber threats and erosion of privacy related to the government. Some underestimation exists, however, regarding criminal use of AI, as it is a top-ranked concern of consumers but lesser ranked by CMOs.

In today's volatile world, consumer optimism could quickly erode if something goes drastically wrong with an AI product. CMOs will need to accentuate the positives and prepare for the negatives, particularly if an AI-crisis takes place and debilitates progress. CMOs wisely recognize the balancing act of education and promotion, as they believe that the benefits of AI will be more difficult than easy to communicate (39% versus 25%, respectively).

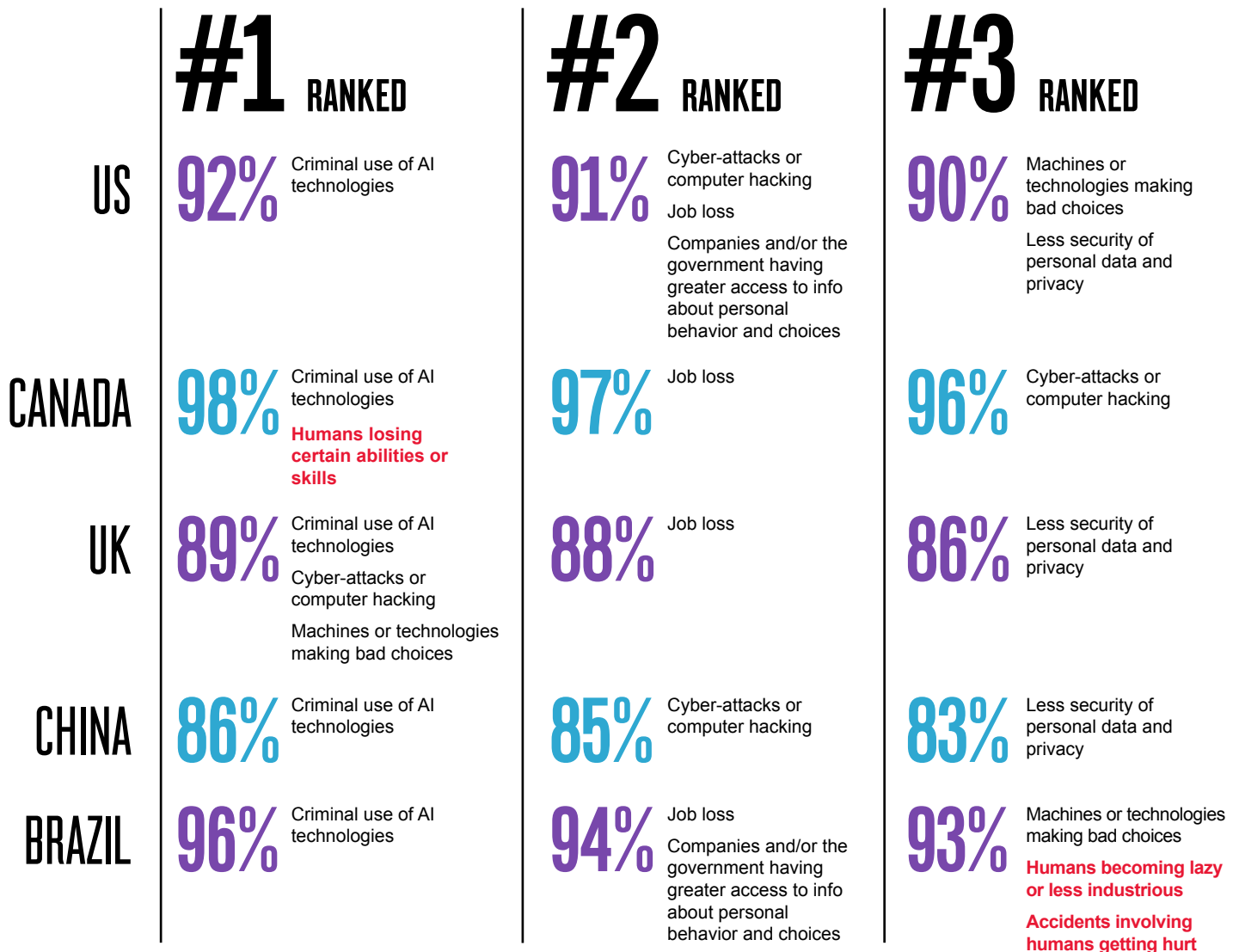
## Regional Comparison

Brazilian consumers report the greatest concern about AI adoption (79%), followed by U.S. (70%) and Canadian consumers (66%). Consumers in each market cite similar concerns among their biggest perceived risks. The loss of certain abilities or skills is a concern unique to Canadian consumers, and people becoming lazy or getting hurt in accidents are concerns unique to Brazilian consumers.

### Concerned about AI Adoption (among consumers)



### Top Concerns that AI Could Result In (among consumers)



Concern is unique to market

# IN CONSUMERS' OWN WORDS: CONCERNS WITH AI TECHNOLOGIES



*My fears stem from job security; the job market currently is horrible. How are humans to support themselves if AI takes over?*

**(U.S. Consumer)**

*There are some situations in which it is necessary to use emotional intelligence; in many situations, the most adequate response is not logic, and countless variables need to be taken into account. Machines don't have emotions.*

**(Brazilian Consumer)**

*First, the technical failure of artificial intelligence will have a great impact on society, like humans losing control over robots in movies. Secondly, extensive use of artificial intelligence will make it hard for people to find a job; replacement of human's role by machines will lead to mass unemployment and cause bigger harms to the vulnerable groups.*

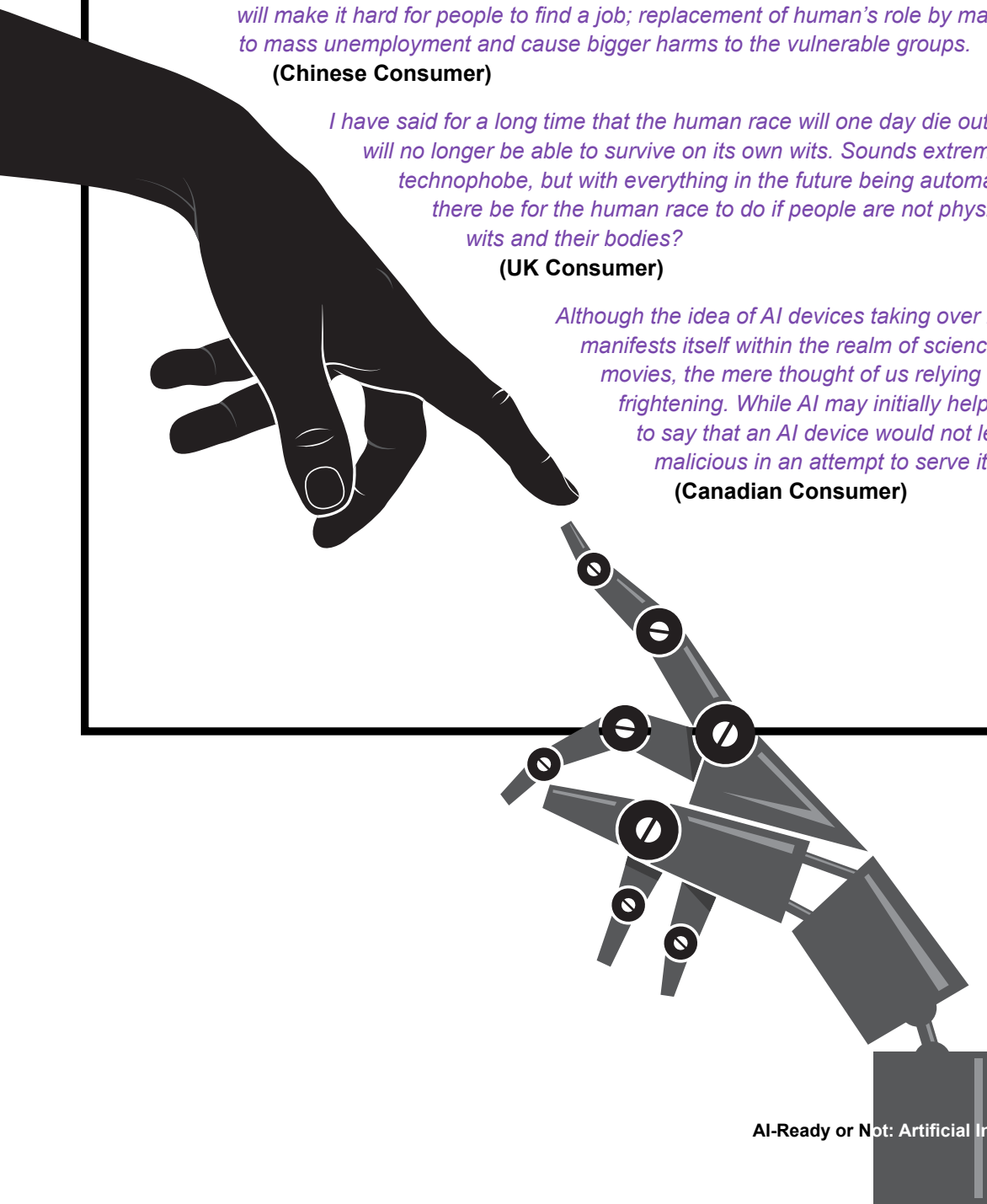
**(Chinese Consumer)**

*I have said for a long time that the human race will one day die out because it will no longer be able to survive on its own wits. Sounds extreme and technophobe, but with everything in the future being automated, what will there be for the human race to do if people are not physically using their wits and their bodies?*

**(UK Consumer)**

*Although the idea of AI devices taking over humans largely manifests itself within the realm of science fiction novels/ movies, the mere thought of us relying on AI is very frightening. While AI may initially help us, who is to say that an AI device would not learn to be malicious in an attempt to serve itself?*

**(Canadian Consumer)**



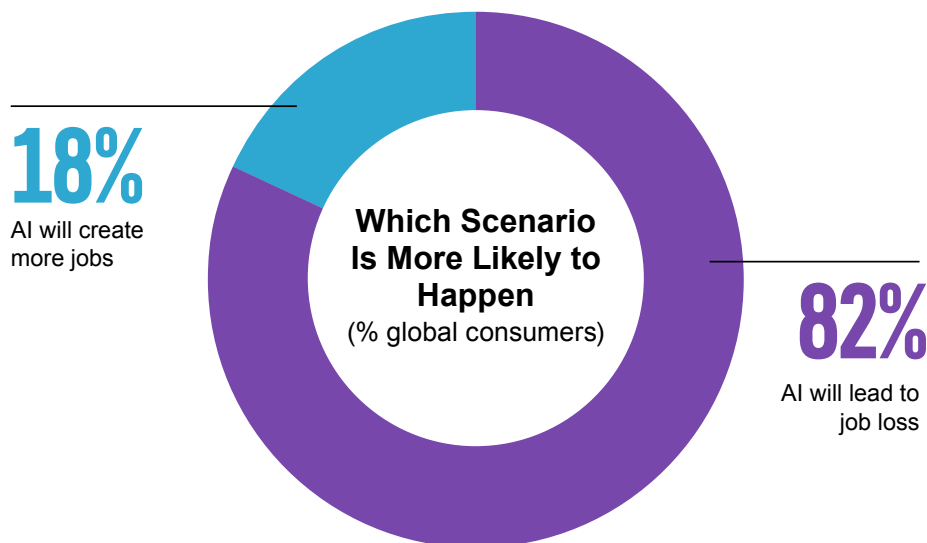


# CONSUMER AI POSITIVITY BUSTER: JOB LOSSES.

A Pew Research study released in 2014 solicited experts' views about advances in AI and AI's impact on jobs and employment. The vast majority of respondents to the research anticipate that robotics and artificial intelligence will permeate wide segments of daily life by 2025 across a wide range of industries.<sup>5</sup> Roughly half of these experts (48%) envision a future in which robots and digital agents will displace significant numbers of both blue- and white-collar workers, while the other half (52%) expect that technology will not displace more jobs than it creates by 2025. The group of 52% agrees that many jobs currently performed by humans will be taken over by robots or digital agents by 2025, but they believe that human ingenuity will create new jobs, industries and ways to make a living.

According to a 2016 article from *The Economist*, what makes tasks vulnerable to AI "is not so much whether the work concerned is manual or white collar, but whether or not it is routine."<sup>6</sup> This creates concern for a variety of workers, even those whose jobs require that they be highly trained. Despite this, the article also suggests that AI will create new jobs and that those involving empathy and social interaction will probably always be best suited for humans.

The lay people in our study aren't similarly divided over AI and job creation. Overwhelmingly, the vast majority (82%) across the markets surveyed expect jobs to be lost due to AI. AI's impact on the workforce, and how that concern has deep, personal meaning to many workers, is something that companies can't ignore. As addressed in the previous section of this report, it is a top consumer fear that CMOs rightfully anticipate as well.

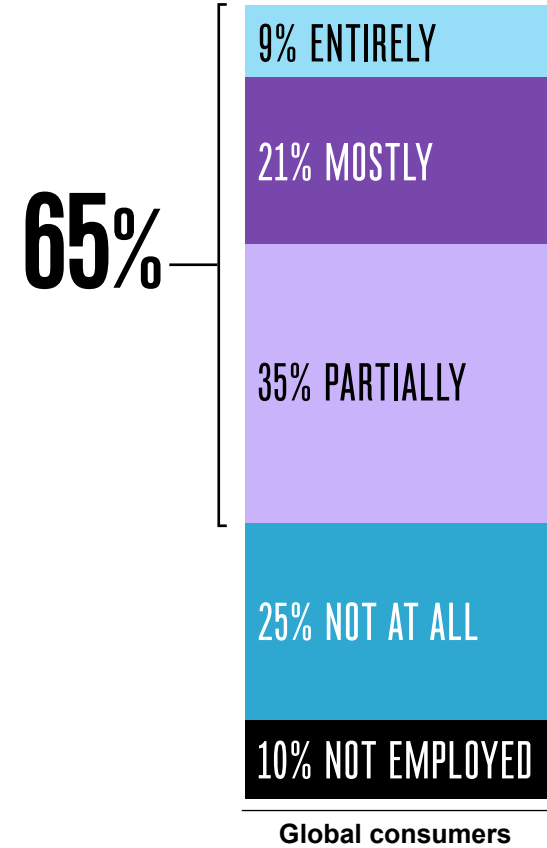


<sup>5</sup> Pew Research Center, "AI, Robotics, and the Future of Jobs," 2014

<sup>6</sup> "The Return of the Machinery Question," *The Economist*, June 25, 2016 (print edition)

And consumer concerns hit close to home, with two-thirds expecting their own jobs could be at least partially replaced by AI. Only 25% do not see that as a possibility.

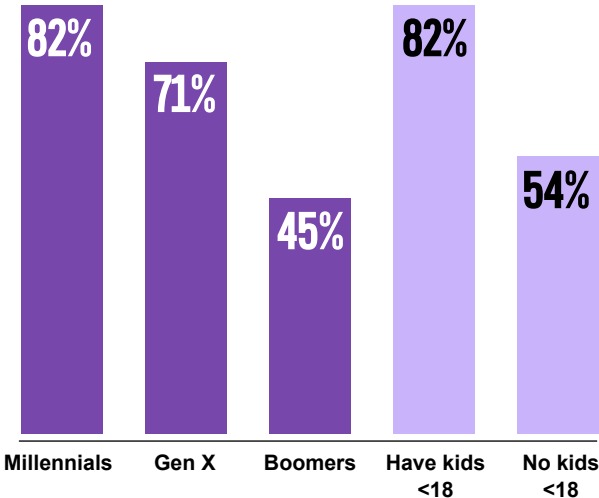
AI’s Potential for Replacing Your Job  
(% global consumers)



# EXPECTATION OF JOB DISPLACEMENT IS DIRECTLY CORRELATED WITH AGE AND PARENTHOOD.

The majority of Millennials, Gen Xers and consumers with kids under 18 years old see their jobs as the most vulnerable.

AI’s Potential for Replacing Your Job Entirely/ Mostly/Partially (% global consumers)



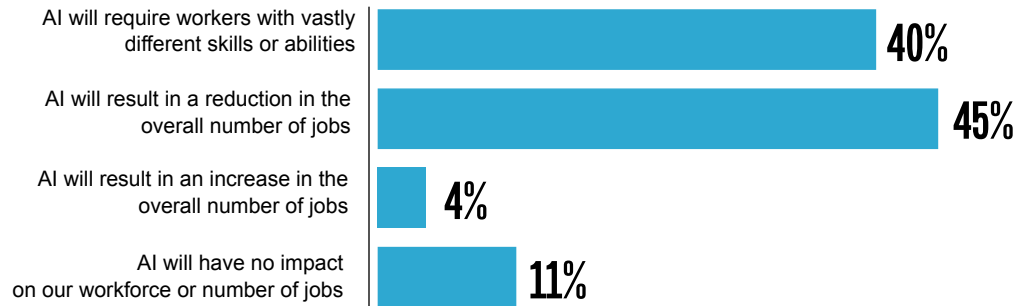
Millennials and Gen Xers may see risk simply because of where they are in their careers – they will be in the job marketplace for many more years, relative to Boomers who have either phased out of the workforce or will be exiting within the next decade or so. They may also be sensitive to job loss due to the recession that impacted their careers and that of their parents.

Parents in every generational cohort are more concerned about job loss due to AI than their childless peers, presumably because of their long-term financial obligations of supporting their kids and paying for their educations. Or, they may be worried about their own children’s futures.

## As Marketers See It: You've Not Seen Anything Yet

CMOs anticipate a large talent shift in the workforce in the near future. Within the next five years, a vast majority of CMOs (85%) expect that AI will change their workforce by requiring new skill sets (40%) or reducing the number of jobs (45%). Few CMOs expect no change at all (11%) and nearly no one expects AI to add jobs (4%) just yet.

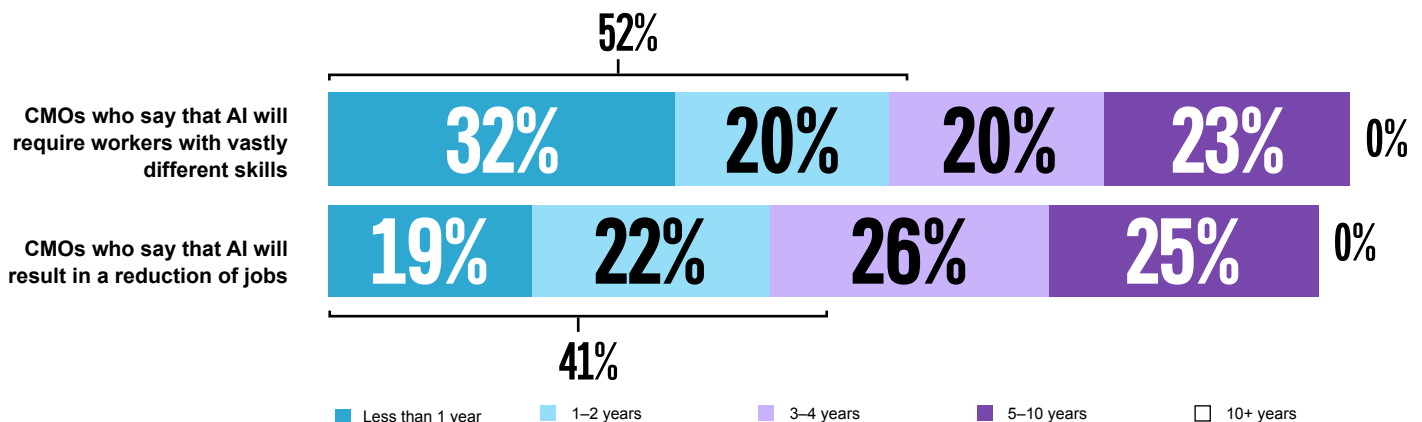
### How AI Will Impact Company's Workforce in 5 Years (% CMOs)



According to CMOs, the requirement of new skill sets will precede a reduction in jobs. A fairly large six in 10 CMOs (57%) anticipate these new skill set requirements within the next two years. Fewer (48%) expect job elimination within the next two years. CMOs see the top challenges to their companies presented by AI as training their workforce for AI adoption (72%) and attracting a ready and able workforce that can leverage AI.

What are the new skills that we'll need in the era of AI? According to the CDT's (Center for Democracy and Technology) July 2016 report: "A solid foundation of basic literacy, numeracy, and civic skills will be vital to success in the workplace. Social skills including persuasion, emotional intelligence, and teaching others will be in high demand across industries. Research suggests employers will highly value 'character skills' such as perseverance, sociability, and curiosity, which correlate closely with employees' ability to adapt to new situations."<sup>7</sup>

### When CMOs Expect a Noticeable Impact on Their Company's Workforce\*



\*Note: Numbers do not round to 100% because some CMOs report their workforce has already been impacted.

<sup>7</sup> Center for Democracy & Technology (CDT), "Preparing for the Future of Artificial Intelligence: In Response to White House OSTP RFI," July 2016

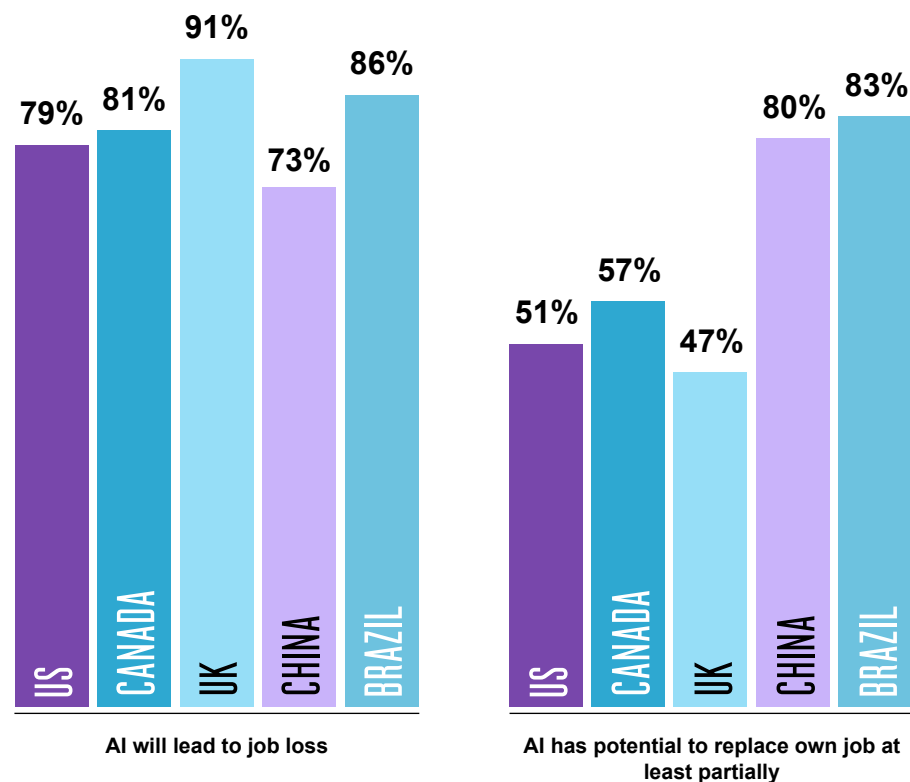
It is unrealistic to expect marketers to assuage consumers' job concerns, but it is something that should be addressed internally by company leaders to retain the qualified workers they have, retrain others and attract new workers where they find talent gaps. Moreover, they will want to be sensitive to heralding the benefits of AI too triumphantly if jobs are seriously at stake in certain sectors.

## Regional Comparison

While UK consumers are most likely to expect AI to eventually lead to job loss, they are least likely to think AI could replace their own job even partially. Given UK consumers' propensity to see AI as something that will arrive later in time, it is not surprising that they are not worried about their own employment.

Although a majority of Chinese consumers believe that AI will lead to job loss, they are less likely than consumers in other markets to be convinced. This is likely due to their more positive AI predisposition generally.

Consumers in the emerging markets – China and Brazil – are the most likely to consider their own jobs at risk. It is interesting that Chinese consumers' optimism around AI outweighs their personal concerns.



# THE AI VANGUARD

## THE LEADING EDGE OF AI ADOPTION

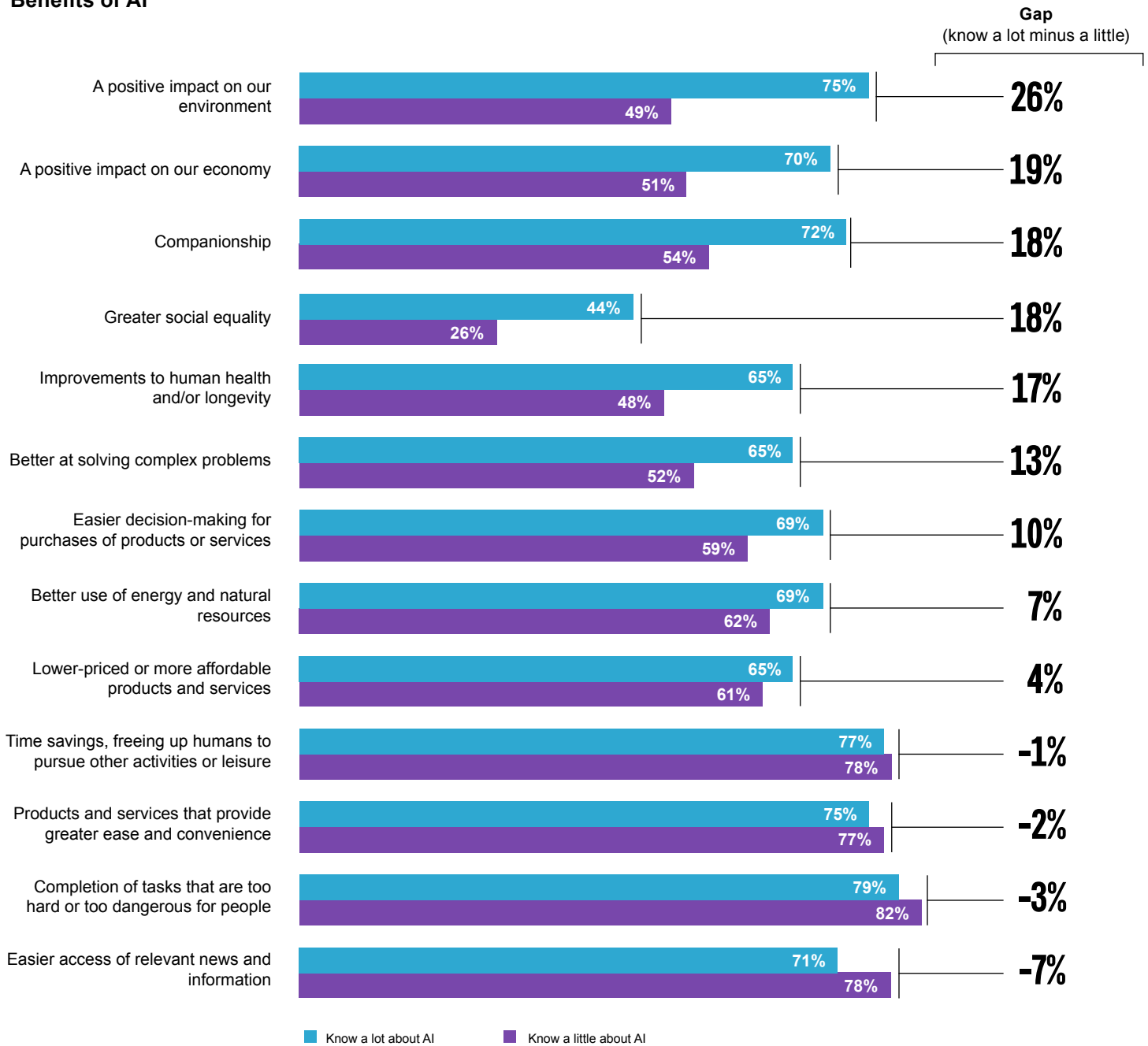
Nearly three in 10 global consumers (28%) report that friends and/or family with some knowledge of or experience with AI would be among their most trusted sources for accurate information on the benefits and drawbacks of AI technologies and products. Consumers with limited knowledge of AI – representing a large 48% of consumers – are even more likely (34%) to rely on people they personally know to bring them up to speed on AI. This finding underscores the importance of AI knowledgeable consumers to be able to accurately and effectively cascade AI information to the mainstream.

As addressed earlier in this report, our research identified a small (18%) but highly AI-conversant segment of global consumers. These are the AI Vanguard. As seen with the advent of most new technologies, these pioneers pave the way for product success. Who are the members of this leading-edge segment? In this section, we profile them so that marketers may more easily target them in their AI launch plans.

### Who Is the AI Vanguard?

- **The demographic composition of the AI Vanguard is not surprising, fitting an early adopter profile.** Compared to those who don't know as much about AI, they skew younger, male, educated and employed earning a higher income. They also skew higher for having kids under 18 and living in urban areas.
- **The AI Vanguard doesn't just profess to knowing more, they are in fact likely to already have AI devices.** We cross-referenced the AI Vanguard with a self-reported assessment of their ownership or usage of a product powered by AI, even if rudimentary AI. The analysis revealed that compared to those less AI-knowledgeable, the AI Vanguard is significantly more likely to have smart TVs, smart watches, automated or smart home systems, wearable fitness devices, self-driving vacuum cleaners and personal drones. They also have a heightened sense of AI's development, as 20% believe AI is fully developed compared to the 9% of less knowledgeable consumers.
- **Like the average consumer, the AI Vanguard ranks experts, hands-on testing and academics as its most trusted sources of AI information.** However, the AI Vanguard is significantly more likely than those with little knowledge to trust films/shows/documentaries, advertising and their social networks. Their trust in these forms of information may simply be a result of selective perception and self-selection: They have a fondness for AI so they seek entertainment about it, they notice advertising for it and they choose social media connections that have similar interests as they do.
- **The AI Vanguard is much more likely to see the potential for AI to produce social benefits,** including greater optimism for social equality (which ranked last among the full sample of consumers). Among those better informed, AI is seen as delivering benefits for the greater good.

## Benefits of AI



The societal benefits of AI should not be overlooked by marketers as selling points. Today they may not be readily apparent to the general public, but they are accepted by those “in the know” and have the potential to become strengths that overcome the negatives associated with AI.

- **The AI Vanguard is less concerned about the negatives.** Revelation #6 showed that knowledge of AI is directly related to optimistic feelings about the impact AI has on the future. Similarly, the AI Vanguard is much less likely to have concerns about the adoption of AI.

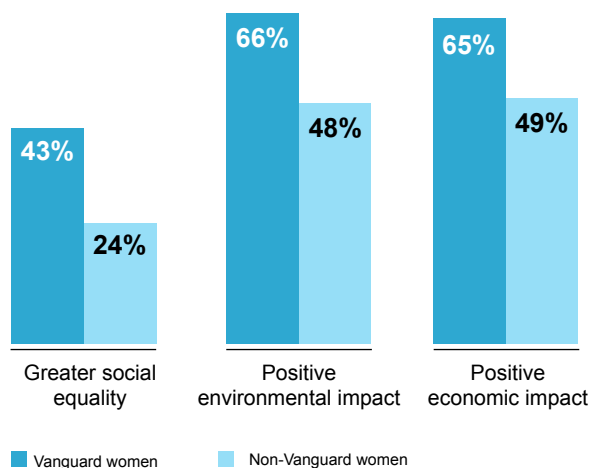
#### Very/Somewhat Concerned about AI Adoption

**56%** KNOW  
A LOT  
ABOUT AI

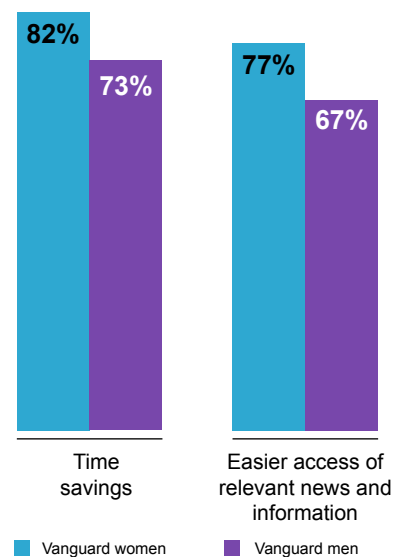
**70%** KNOW  
A LITTLE  
ABOUT AI

## AI VANGUARD WOMEN ARE MORE LIKELY TO RECOGNIZE A GREATER NUMBER OF BENEFITS OF AI.

Benefits with the widest gaps between AI Vanguard women and non-AI Vanguard women are:



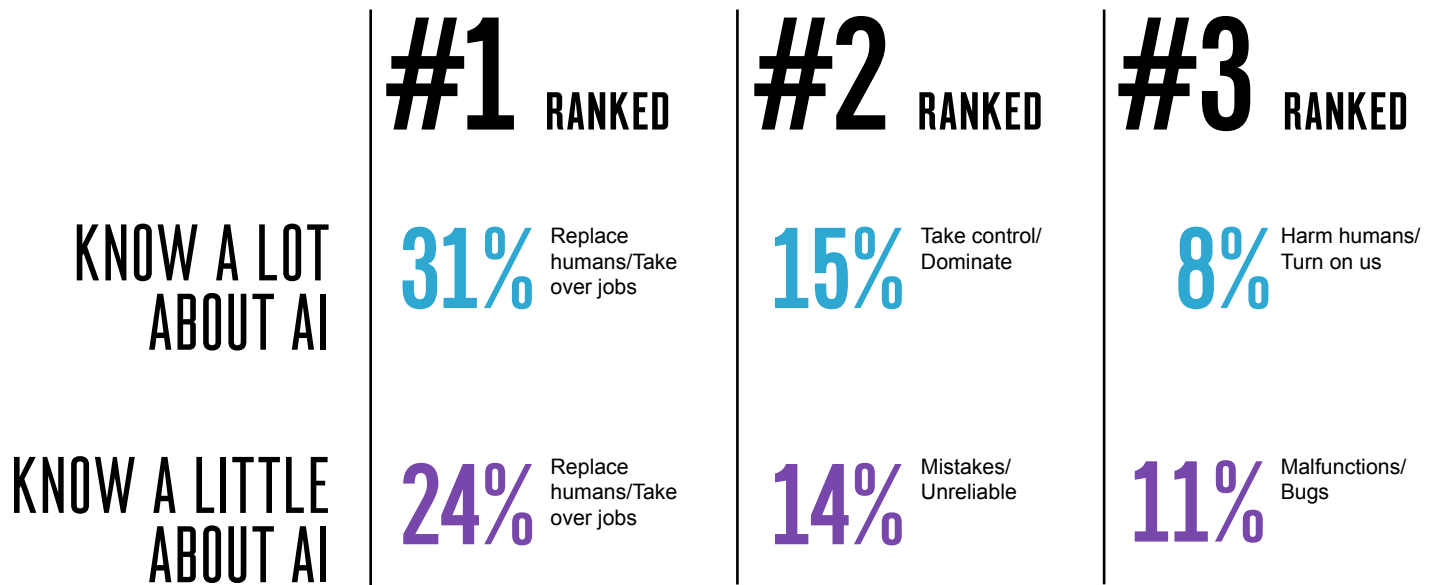
The positives that AI Vanguard women are more likely to see than their male counterparts are:





The AI Vanguard has the same leading concern as other consumers – they worry most about job displacement. However, unlike consumers who don't know as much, their next tier of concerns revolves around AI taking over and turning against people. This is a significant issue marketers will need to address. If this is what is lurking among the early AI adopter segment, then marketers have considerable work ahead of them to build buy-in among the buying public.

#### Top 3 Concerns about AI, Asked Open-Endedly (among consumers who have concerns)



When presented with a list of potential negative AI outcomes, the most serious concerns of the AI Vanguard are the same as those with less knowledge. Criminal use of AI and job losses outweigh other fears. There are no significant differences between these segments of consumers when it comes to AI concerns. The only concern that directionally looms larger among the knowledgeable set is disruption in infrastructure.

- **The AI Vanguard has heightened fears for the security of their own jobs.** More than half (52%) of them believe that their jobs could be entirely or mostly replaced by AI and that fear factor climbs to a nearly universal 90% with partial job replacement. This is significantly higher than the concern registered by those with little knowledge about AI (68%). While it seems paradoxical that this segment is simultaneously optimistic about the potential of AI and expecting to see their jobs fade out, perhaps they do not see such displacement as imminent.

# THE CMO's GUIDE TO ENGAGING IN THE AI ERA



For companies to successfully compete in the new age of artificial intelligence, their CMOs will be central to bringing consumers up the AI learning curve while at the same time selling their products and services. Consumers may seem ready for AI, but they have concerns, and therefore an artful balancing act of education and promotion will be the CMO's greatest challenge.

Based on the insights from *AI-Ready or Not: Artificial Intelligence Here We Come!*, Weber Shandwick suggests CMOs use these guidelines as a basis for their own AI marketing plans:

## 1 BROADEN THE BASELINE UNDERSTANDING, INCLUDING YOUR OWN.

Consumers are more accepting of AI's impending arrival than marketers give them credit for. However, deep understanding of AI is limited to a very small group of consumers, and even among them, AI connotes "robots." Marketers should be careful not to perpetuate confusion among the general public by labeling products as AI when they are not actually AI-powered. Research, particularly focused on company targets, needs to be gathered and analyzed to assess where targets fall on the spectrum of understanding and acceptance, and the research needs to be refreshed on a regular basis to determine how knowledge and attitudes are changing.

Education on the marketer's side is crucial as well. The survey found that even marketers already competing in the AI space are not fully confident in their knowledge of AI. Education begins at home!

## 2 STRENGTHEN MEDIA RELATIONSHIPS.

The media appears to be effectively transmitting AI content that yields positive first impressions for consumers. Marketers now know that consumers are taking the lead on AI from media channels and should course-correct their consumer and influencer roadmaps accordingly.

### **3 STAY CLOSELY ALIGNED WITH CONSUMERS ON TRUSTED AI TASKS.**

For the most part, CMOs are in line with consumer sentiments on trusted AI activities. However, there are some tasks that CMOs overestimate consumer acceptance of when it comes to AI, further reinforcing why CMOs need to stay closely attuned to consumer insights. Similarly, the advantages that CMOs believe are consumer advantages are not necessarily perceived by consumers as such. While CMOs need to know what they have license to promote, they also do not want to leave leverageable benefits on the table. Given the importance of the media, at least at this stage of AI, media monitoring should be conducted regularly to have insight into what consumers are hearing and learning about.

### **4 IGNORE AI FEARS AT YOUR OWN RISK.**

The majority of CMOs correctly believe that consumers are concerned about a multitude of AI-related negative events. Generally, their perceptions align with real consumer concerns: job loss, cyber threats and erosion of privacy related to the government. Some underestimation exists, however, regarding criminal use of AI. CMOs need to not only accentuate the positives, but prepare for the negatives, particularly if an AI crisis takes place and debilitates progress. This would be a good time to revisit and possibly refresh the company's crisis-preparedness plans.

### **5 FIND YOUR EXPERTS.**

Do not underestimate the importance of technology experts to consumers. CMOs should think twice about leveraging these professionals if companies expect success in their campaigns and strategies to promote products and services that are AI based. Partnerships should be a consideration.

### **6 PREPARE FOR THE GREAT TALENT SHIFT.**

CMOs anticipate a large talent shift in the workforce in the very near future. CMOs see the top challenges to their companies presented by AI as training their workforce for AI adoption and attracting a ready and able workforce that can leverage AI. CMOs' own departments will not be immune to such change, so as leaders they should be thinking about what their staffs will need to look like in five years. What kinds of talent will they need? It is fair to say that many CMOs were caught off guard by the social media revolution and they will not want to repeat history with the AI revolution.

### **7 CONSUMER KNOWLEDGE IS THE KEY TO SUCCESS.**

Our research shows that there is a link between AI education and AI acceptance. Marketers will need to creatively engage consumer segments on understanding AI benefits. Since negativity has a greater effect on people's perceptions than positivity, marketers will have to work harder and more strategically to over-communicate the upsides of AI to overcome the more easily entrenched downsides. Utilizing expert opinion, which global consumers report as their most trustworthy AI information source, should be one of the CMO's first plays in the AI marketing plan.

### **8 FOLLOW THE VANGUARD.**

Those who are most knowledgeable about AI are often early technology adopters. These are the people that future waves of adopters look to for information and purchase counsel. So that they will be evangelists for AI products, CMOs should leverage the societal benefits they perceive and broaden the link to AI that goes beyond robotics. This segment is drawn to AI media, so product placements in movies, TV shows and news segments will capture their attention. They also notice AI advertising and their social networks are influential, so opportunities abound for capturing their attention.

## 9 ADOPT RESPONSIBLE AI PRACTICES.

The research highlights some of the concerns that consumers have about AI once it penetrates the mainstream marketplace. Government interference and loss of privacy are concerns. The AI community as well as marketers should join in a pledge to protect consumers. Some industries have begun to form their own coalitions. One such coalition is Partnership on Artificial Intelligence, a membership of five major technology companies, each with a large investment in AI.

## 10 BE COGNIZANT OF REGIONAL DIFFERENCES.

Knowledge of AI, optimism about AI's future impact and level of trust in tasks AI can perform all vary by region. Certain markets, namely North America and the UK, will require a greater level of AI education than others, as well as more exposure to positive messaging about AI. Positive media coverage may go a long way in helping consumers in the U.S., Canada and the UK become more trusting of AI and its potential. However, it's important to note that even the most optimistic consumers, those in China and Brazil, will have concerns that need to be allayed, especially when it comes to AI and job replacement.

## 11 START THINKING METRICS NOW. DON'T BE CAUGHT WITHOUT THEM.

It took marketers quite some time during the digital economy to understand and effectively use the assets, such as click-through rates, the ROI of social media connections, etc. Now is a good time to forecast how to measure marketing effectiveness.

## 12 DON'T LEAVE WOMEN BEHIND.

Men are far more likely than women to recite benefits of AI. Yet women are not entirely in the dark about AI. Four in 10 of the AI Vanguard are women. Marketers need to be careful not to exclude women from their communications and to educate about AI's benefits.

# CONCLUSION

Fears surrounding the introduction of new technology are not new. As *The Economist* explains, concern that machines threaten jobs dates back a few hundred years to the Industrial Revolution. As companies adapt to and confront the next wave of the information age — the era of artificial intelligence — our research identifies the opportunities and challenges marketers and communicators should expect to face. As we see, with significant optimism comes a good deal of trepidation. Upsides include a positive to neutral view of AI today, a surprise boost of positive messaging from the media, acceptance of many AI-powered tasks and recognition that AI offers many advantages.

Concern levels rise once consumers are exposed to AI applications, suggesting that marketers have a tremendous job ahead of them: creating content and messages for their products and services that boast the advanced technology without setting off alarm bells that the technology will in some way harm them or be the death knell for society. Currently, the leading and most noticeable benefits are time savings, ease, convenience and the ability to do tasks too risky for humans (i.e., tasks that can be done by robots). However, latent benefits include broader societal benefits, such as positive impacts on the economy and the environment, advances in health sciences and greater social equality. Marketers will have to rely on every ounce of their creative skill to convince consumers that these pluses will not ultimately create mass global unemployment or a degradation of the human intellect and spirit.

“So far the debate has been dominated by the gloomy possibilities of massive job losses and rogue [AI]. More positive scenarios, in which AI dramatically changes the world for the better, tend to attract less attention. So here are three examples. First, AI could transform transport and urban life, starting with self-driving vehicles ... Second, AI could soon enable people to converse with a wide range of things ... Third, AI could make a big difference by turbocharging scientific and medical research ... **A sober assessment suggests that AI should be welcomed, not feared.**”

“The Return of the Machinery Question,” *The Economist*, June 2016<sup>8</sup>

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<sup>8</sup> “The Return of the Machinery Question,” *The Economist*, June 25, 2016 (print edition)

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