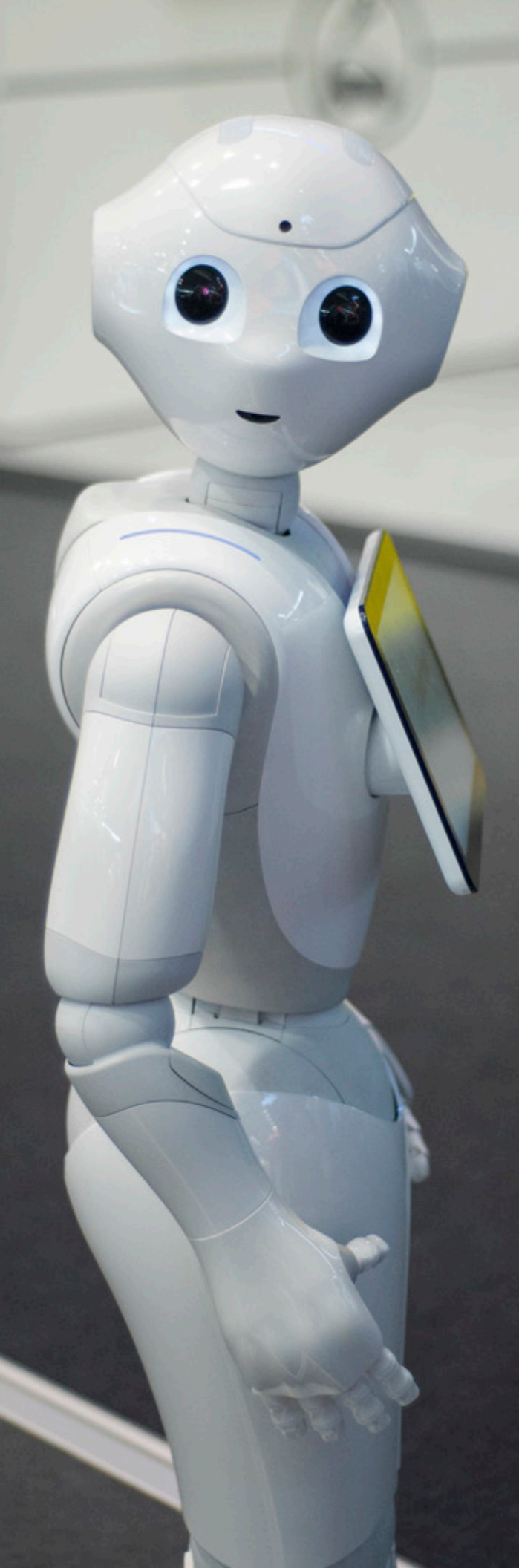


# *Bot.Me: A revolutionary partnership*

How AI is pushing man and machine closer together

*Consumer Intelligence Series*





## AI: A new way of thinking

The modern world has been shaped by the technological revolutions of the past, like the Industrial Revolution and the Information Revolution. The former redefined the way the world values both human and material resources; the latter redefined value in terms of resources while democratizing information. Today, as technology progresses even further, value is certain to shift again, with a focus on sentiments more intrinsic to the human experience: thinking, creativity, and problem-solving.

AI, shorthand for artificial intelligence, defines technologies emerging today that can understand, learn, and then act based on that information. Forms of AI in use today include digital assistants, chatbots, and machine learning. Today, AI works in three ways:

- **Assisted intelligence**, widely available today, improves what people and organizations are already doing. A simple example, prevalent in cars today, is the GPS navigation program that offers directions to drivers and adjusts to road conditions.
- **Augmented intelligence**, emerging today, enables people and organizations to do things they couldn't otherwise do. For example, the combination of programs that organize cars in ride-sharing services enables businesses that could not otherwise exist.
- **Autonomous intelligence**, being developed for the future, establishes machines that act on their own. An example of this will be self-driving vehicles, when they come into widespread use.

With a market projected to reach \$70 billion by 2020, AI is poised to have a transformative effect on consumer, enterprise, and government markets around the world.<sup>1</sup> While there are certainly obstacles to overcome, consumers believe that AI has the potential to assist in medical breakthroughs, democratize costly services, elevate poor customer service, and even free up an overburdened workforce. Some tech optimists believe AI could create a world where human abilities are amplified as machines help mankind process, analyze, and evaluate the abundance of data that creates today's world, allowing humans to spend more time engaged in high-level thinking, creativity, and decision-making.

Technological revolutions, like the Industrial Revolution and the Information Revolution, didn't happen overnight. In fact, people in the midst of those revolutions often didn't even realize they were happening, until history was recorded later. That is where we find ourselves today, in the very beginning of what some are calling the "augmented age." Just like humans in the past, it is up to mankind to find the best ways to leverage these machine revolutions to help the world evolve. As Isaac Asimov, the prolific science fiction writer with many works on AI mused, "No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be." As a future with AI approaches, it's important to understand how people think of it today, how it will amplify the world tomorrow, and what guiding principles will be required to navigate this monumental change.



## *Methodology*



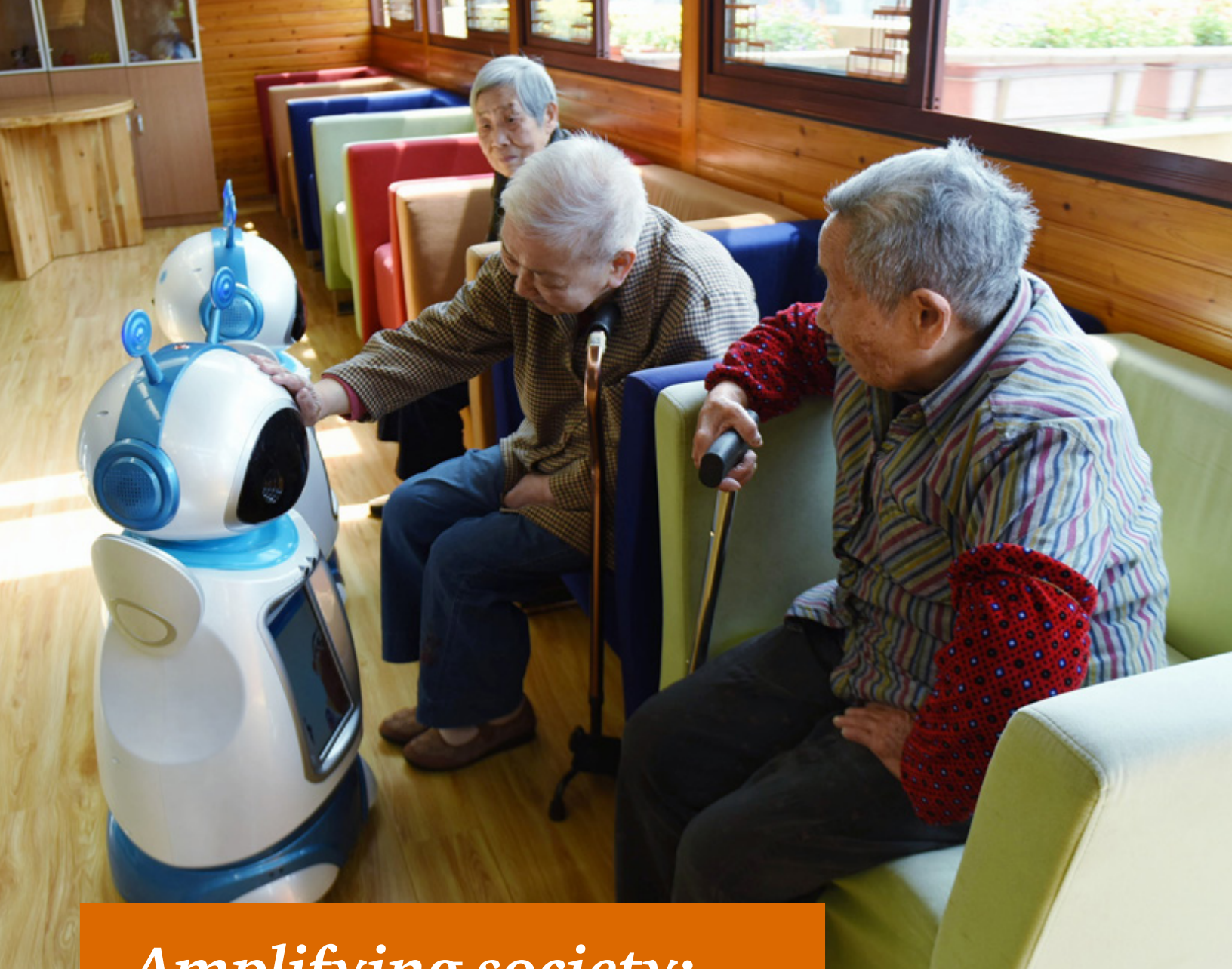
*We sampled 2,500 US consumers and business decision makers via a nationally representative online survey to explore attitudes towards artificial intelligence and its current and future implications on society.*

### *Expert salon*

In February 2017, we conducted an expert salon in New York City to capture ideas from thought leaders in AI and emerging technologies across media, entertainment, communications, and consulting.

### *Consumer and business decision maker survey*

We sampled 2,500 US consumers and business decision makers via a nationally representative online survey to explore attitudes toward artificial intelligence and its current and future implications on society. The survey was conducted among adults 18 and older. Business decision makers were identified as being managers or leaders within their organizations who influenced key choices on technology, service development, and other critical aspects of developing the business. All participants were screened for basic familiarity with AI.



## *Amplifying society: Humans 2.0*

At a time when cancer cases are expected to soar to over 21 million,<sup>2</sup> over half a billion personal information records were stolen or lost in 2015,<sup>3</sup> and over 250 million people are expected to be displaced by climate change,<sup>4</sup> humans need all the help they can get. AI could provide tools that help humanity solve these massive problems and make sense of the current deluge of data. These tools could spot, identify, and help solve complex problems, supplementing human experience, critical thinking, and soft skills to create optimized man-machine solutions. Biases and leaps in logic could be corrected with artificial brains that use pure logic. At the same time, they can also learn to show emotion and empathy when required. On top of that, AI has the potential to democratize services like education, law, and financial advice, providing them to everyone in a personalized manner and at a lower cost.



## Consumers are rooting for AI

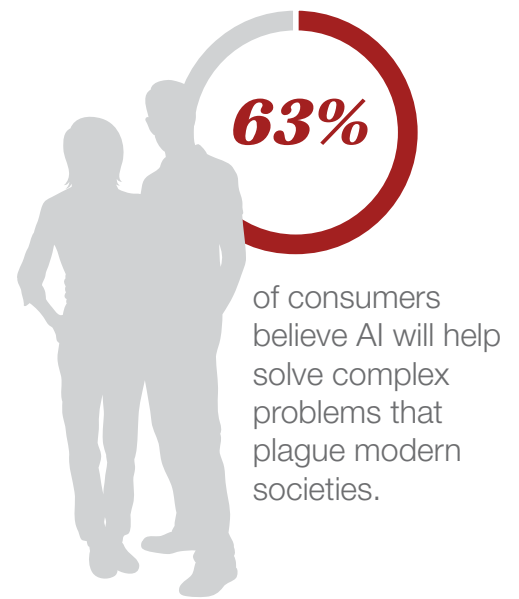
Despite the way the film industry and news media largely portray AI, most consumers see how it could benefit their lives. More than half agree AI will help solve complex problems that plague modern societies (63%) and help people live more fulfilling lives (59%). On the other hand, less than half believe AI will harm people by taking away jobs (46%). When it comes to a blockbuster-movie-style doomsday, only 23% believe AI will have serious, negative implications.

During our panel discussion with AI thought leaders, Kaza Razat, an AI developer, theorized that AI will help humans overcome their own shortcomings: “As humans, there’s a lot we’re not good at. When we’re making machines that are better at certain things than we are, it’s still an extension of us. From an evolution standpoint, there are places where we’ve reached the end of our capacity.” His thinking isn’t just theory. It’s already being proven true. For instance, an AI system has correctly predicted the outcomes of hundreds of cases heard at the European Court of Human Rights with an accuracy rate of 79%.<sup>5</sup>

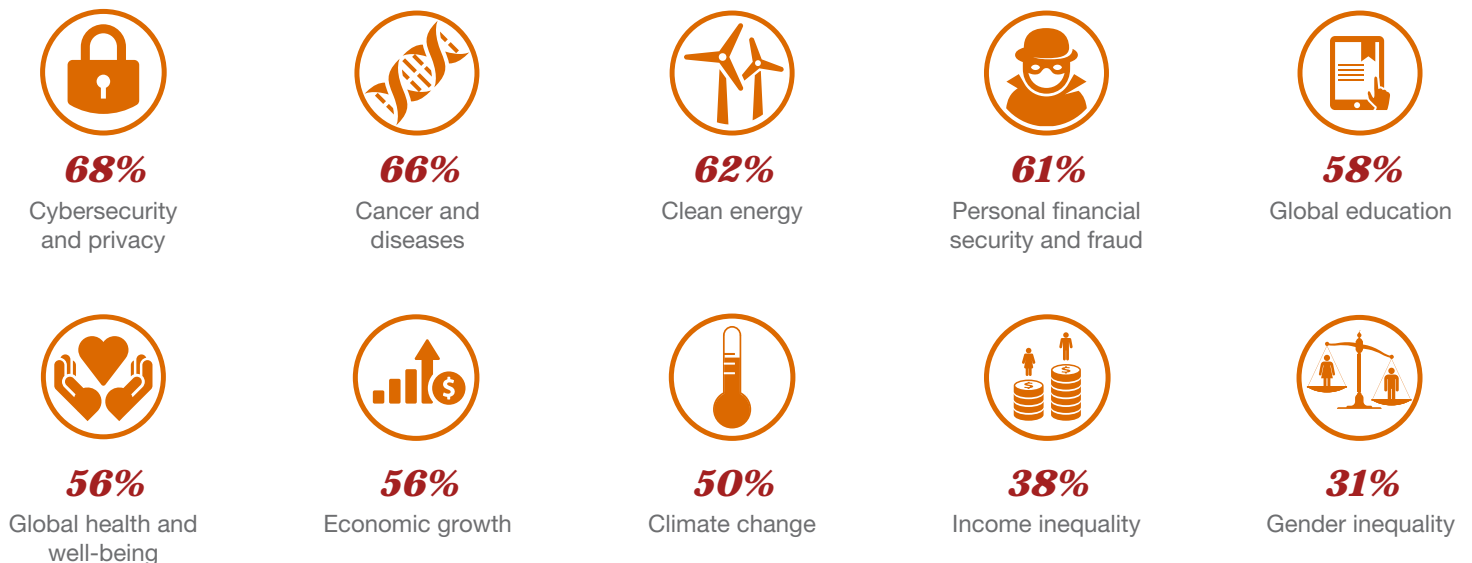
While this system was informed by enormous volumes of public data, AI’s accuracy hinges largely on the quality of the data supplied. This is why some predictions based on big data crunching have gone horribly wrong. For example, in the 2016 US presidential election, a majority of polling aggregators incorrectly predicted a Clinton victory with over 70% confidence.<sup>6</sup>

Most consumers believe that AI will provide solutions to major issues they’re concerned with today. Cybersecurity, privacy, cancer, and other diseases rank among their chief concerns. With the enormous amount of DNA data being recorded today, AI could revolutionize personalized healthcare by analyzing that data; wearables and ingestibles could monitor and correct human behavior to maximize life expectancy and enhance wellbeing. We’ve already seen AI successfully identify autism in babies with 81% accuracy<sup>7</sup> and skin cancer with 91% accuracy<sup>8</sup>.

As with most technologies, younger generations are the ones to first see the long-term potential. They recognize that harnessing the power of AI could lead to a better future, and most believe it could help solve major societal issues. Top of mind for most millennials, compared to the rest of consumers, is global education and income inequality. They optimistically see AI as a way to even the playing field while stimulating economic growth.



### Importance of AI being used to help solve:

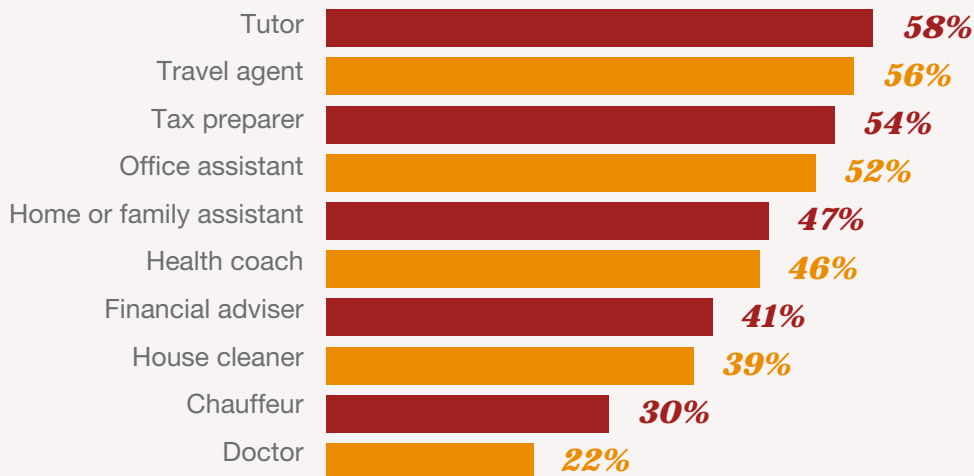


Base: Gen pop – Q3. How important is it that AI be used to help solve the following societal issues?

## *If you're happy and you know it, thank your robot*

Societal issues are long-term issues. So what do consumers think about AI's impact on their immediate future? In the next five years, more than half can imagine AI assistants replacing humans as tutors (58%), travel agents (56%), tax preparers (54%), and office assistants (52%). However, consumers still have reservations about consciously adopting AI as home assistants, house cleaners, financial advisers, chauffeurs, health coaches, and doctors.

**In the next five years, how likely is it that people will turn to AI assistants versus real humans within the following roles?**



Base: Gen pop – Q4. In the next 5 years, how likely is it that people will turn to AI assistants versus real humans within the following categories? Top 2 box.

## *AI for all*

AI has the potential to become a great equalizer. Access to services that were traditionally reserved for a privileged few can be extended to the masses. More than half of consumers believe AI will provide educational help to disadvantaged schoolchildren, 122 million of whom are functionally illiterate worldwide.<sup>9</sup>

In addition to decreasing costs to expand access to education, AI will offer unprecedented levels of personalization for each student. Many online universities already track which students are getting “stuck” on what concepts and optimizing the courses to fit their learning styles.

Over 40% of consumers also believe AI will expand access to financial, medical, legal, and transportation services to those with lower incomes. This democratization has already been popping up with services like DoNotPay, a bot that appeals parking tickets for free. Another example that benefits the masses is Ayannah, whose AI-powered credit scoring service is aiding 87% of unbanked Filipinos who otherwise would not have a credit score.<sup>10</sup>

The majority's desire to gain access to these new technologies often outweighs the protective feelings of those who feel defensive of jobs in certain industries. Eighty percent of consumers say it's more important to have access to more affordable legal advice than to preserve the jobs of lawyers. More than two-thirds mimic that sentiment when it comes to gaining access to better transportation and customer service rather than preserving the jobs of taxi drivers and customer service reps.

But that hunger for access doesn't necessarily translate to their personal lives. Seventy-seven percent would prefer to visit a doctor in person than to take an assessment at home with a robotic smart kit. Sixty-one percent would rather have universities with human teaching assistants than universities with chatbot assistants that lower the cost of tuition. While they are eager to see increased affordability and access in transactional services like hailing a taxi, consumers still crave human insight and connection when it comes to more long-term or impactful decisions on their health and education.

## For AI, sharing is caring

AI, in its current form, has a major challenge: intelligence is only as good as the data it can learn from. However, that becomes a touchy subject in an age of increasing privacy worries: 87% of consumers cite privacy as a major concern.

As worried as they might be, they recognize the altruistic value of sharing their data. The majority of consumers admit there's a dramatic upside for society: 57% would share their personal information to further medical breakthroughs. Sixty-two percent would share their data to help relieve traffic in their cities. However, they draw the line on their personal data when it comes to allowing tracking and aggregation of online entertainment and media consumption, where privacy outweighs the benefit of cost savings. Less than half (47%) would be open to sharing this type of data even if it meant lower costs.

### AI takes center stage

By 2025, our respondents think it's most likely AI will:



Make a top 100 *Billboard* song



Create a piece of art that is worth over \$100,000



Write a hit TV series



Authoring a *New York Times* best seller

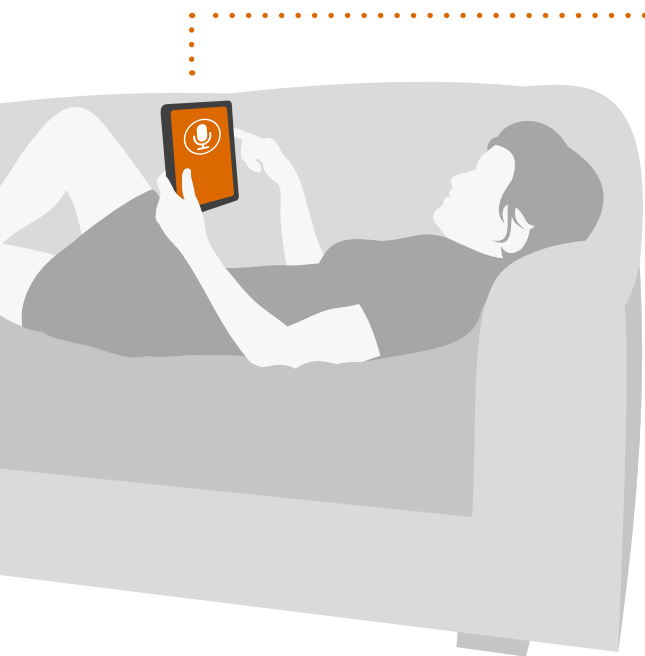


Writing a movie that wins an Oscar



Winning a Pulitzer Prize for journalism

# Life upgraded with artificial intelligence



## Consumers are buying into AI

They are more optimistic about the solutions it could provide than the disruption it could create:

**63%** agree AI will help solve complex problems that plague modern societies

**59%** agree AI will help people live more fulfilling lives

On the other hand:

**46%** believe AI will harm people by taking away jobs

**23%** believe AI will have serious, negative implications

## AI, the great equalizer?

AI has the potential to expand opportunities and access:

**71%** believe AI will provide educational help to disadvantaged school children

**40%** believe AI will expand access to financial, medical, legal, and transportation services to those with lower incomes

This access is even more important to them than preserving jobs of employees in certain industries:

**80%** say it's more important to have access to more affordable legal advice than preserve the jobs of lawyers

**69%** would rather have more affordable, convenient and reliable transportation than preserve the jobs of taxi drivers

**64%** would rather have instant access to quality customer service than preserve the jobs of customer service reps



Base: Gen pop – Q5. To what extent do you agree that AI could help solve complex problems that plague modern societies? Top 2 box. Q6. To what extent do you agree that AI could help people live more fulfilling lives? Top 2 box. Q7. To what extent do you agree that AI could harm people by taking away jobs? Top 2 box. Q7. To what extent do you agree that AI could harm people and threaten humanity as we know it? Top 2 box. Q32-6. How likely is it that AI could provide educational help to disadvantaged school children? Top 2 box. Q32-2-5. How likely is it that AI could provide... medical access/legal services/transportation/personal financial management to low income adults? Top 2 box. Q43-1-3 Which is more important: Gaining access to more affordable, convenient and reliable transportation and taxi services OR ensuring taxi drivers have jobs/instant access to quality customer service assistance OR ensuring customer service representatives have jobs/gaining access to more affordable legal advice OR ensuring lawyers have jobs.





## *Amplifying service: Cyborg concierge*

The world is hungry for better service. Society as portrayed in the movie *Her* still seems like a far off vision, but consumers have seen what could be and they're eager to get it, especially when it comes to customer service. Customers today expect service across all channels, demand anytime, anywhere access, and can compare prices between businesses with ease. On top of all that, they also have a variety of social media platforms to air their grievances if anything isn't to their liking. The result? Businesses are struggling to keep up. Every year, \$62 billion is lost through poor customer service—a loss that continues to grow with every passing year.<sup>11</sup>

AI can help plug that leak by going above and beyond what humans are able to do. It could shift today's run of the mill standard to service that is truly personalized, creating a digital concierge that is run by humans but lets machines do the heavy lifting. Lowe's Home Improvement is piloting one such platform, called the LoweBot, that helps customers find and scan products and provides recommendations, freeing up employees to provide deeper expertise and personalized service. Another example is the RIVA Machine, a robot that fills prescriptions, allowing pharmacists to spend more time discussing medications and implications with customers.

## ***People <3 their digital assistants***

AI programs that can help individuals perform tasks or services, called digital assistants, have already become common and acceptable shoulders to lean on in daily life and work environments. Forty-two percent of consumers already use digital assistants, while 72% of business execs and 53% of millennials are using them. Combining user input, location awareness, and other information across a variety of online sources, they're shedding any negative perception of being just frivolous apps. Our panel of experts referred to this perception shift as the "AI effect," coined by computer scientist Patrick Henry Winston. As AI becomes more successful, it ceases to be called "AI" and is referred to by a different name, like voice recognition, speech synthesis and now machine learning. Essentially, as AI becomes more important, it becomes less conspicuous.

***The AI effect:  
As AI becomes  
more important,  
it becomes less  
conspicuous.***

Today, digital assistants are most commonly used at home. Over 40% of business execs use their digital assistants throughout the whole day, reporting usage while driving, commuting, and working. Across all respondents, at any time of day, the top benefits of digital assistants are utilitarian (i.e. "it saves me time," "it helps me get things done," and "it reminds me of calendar events").

The experts from our AI panel spoke at length about the importance of providing utility first for adoption of new technology. It has to be the way to get faster, more seamless, and more proactive service. Then, once it's adopted, it's the norm. Already allowing us to interact with the physical world using all five senses, AI will only continue to become more ubiquitous. "In 10 years, if you're not using some sort of AI-enhanced assistant, it will be like not being on the Internet today," said AI developer Kaza Razat.

## ***The beginning of a wonderful friendship***

The personality of digital assistants divides consumers' perceptions. Nearly the same number find the technology "smart" and "friendly" as those who find it "robotic" and "limited." Yet the heaviest users of digital assistants, business execs, led the pack with the most positive experiences. They were 20% more likely to consider their digital assistants to be in the "smart" and "friendly" camp.

For the most part, today's consumers do keep some distance in their relationships with digital assistants. Most consider them to be "advisers," and many see them as "acquaintances." While the technology has improved significantly from early chatbots of 40 years ago, digital assistants of today aren't entirely intuitive. There's still much progress to be made before they can hold meaningful conversations, but consumers are optimistic that digital assistants will continue to evolve and narrow that distance over time, describing likely future digital assistants as being "teachers" and "friends." Also, there was only a small minority of consumers with harsh, negative feelings toward digital assistants. For instance, less than 10% believe they will view digital assistants as "adversaries" or "strangers" in the future.

To meet consumers' desires for friendlier digital assistants, companies are actively working to give them a human touch. Amazon and Google are hiring comedy writers and poets to incorporate humor. So now if the mood strikes, anyone can ask Alexa for "more cowbell" or to "tell a funny joke."

***"In 10 years, if you're not using some sort of AI-enhanced assistant, it will be like not being on the Internet today."***

- Kaza Razat, AI developer

## Consumers want it all

As the line between humans and bots becomes more blurred, so too do consumer preferences for customer service. Thirty-five percent said their biggest concern with an AI customer service was a loss of human touch. They're looking for the best of both worlds. In fact, 43% of millennials and 28% of business execs would pay a premium for a hybrid service run by AI that offers direct access to humans, versus a human-only service.

The potential for quicker and more efficient transactions interests consumers the most. More than 60% believe AI can reduce the time it takes to get answers while still being highly tailored to their preferences. Thirty-eight percent believe it can offer a "superior one-to-one personalized experience." Among business execs, this number rises to 63%. To further separate the group from the rest of consumers, business execs express more fear of their technology breaking or being unavailable than it being too invasive of their privacy, indicating a higher level of usage and dependency.

*63% of business execs believe AI can offer a superior one-to-one personalized experience.*

## The Bot100

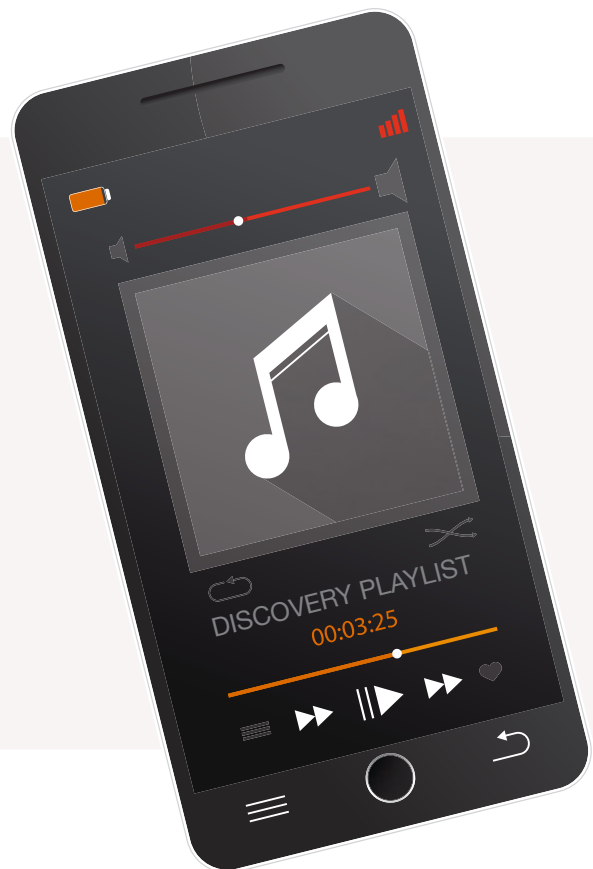
In the future, AI will know consumers so well that it will be able to look outside their usual preferences to discover new ones. Millennials are already in tune with this. Beyond customer service assistance, they are also looking for bots to make entertainment recommendations. More than half (55%) say they would like to select their media by curating a list that draws heavily on AI recommendations or simply have it completely selected by a bot.

## How can humans help?

One of the biggest barriers facing the integration of consumer services continues to be fragmented technology development. Each brand develops a different platform, generates different data, and different learnings while working in a silo. It comes down to competitive advantage and wanting one's own platform to "win." Ok Google, Siri, Cortana, Facebook Messenger, and Alexa are the result of this practice.

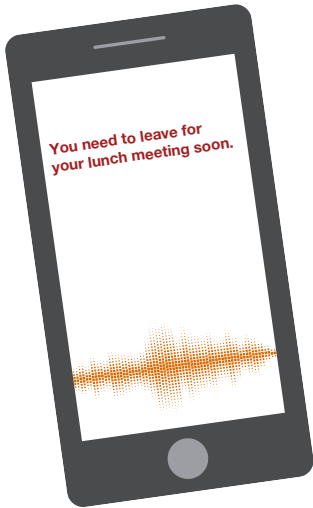
Our panel experts predicted two tactics that would rapidly increase the adoption rate of AI services:

1. **Create a "universal chat" platform:** a destination where all conversations with AI bots would take place. This would allow one central platform for development, data collection, and analysis.
2. **Create a "universal footprint":** in a world where privacy is a top concern of consumers, PwC Innovation Lead, Data & Analytics, Anand Rao theorizes that consumers would be more comfortable if they could control when and for how long the data they give to AI platforms exists. For instance, whatever conversation a consumer has with an AI, that data would only be available to brands for a short period, then be erased at a time of the consumer's choosing. This would help increase adoption and raise confidence when it comes to highly sensitive activities like banking, healthcare, and business management.





# Service and sales, supercharged



## Digital assistants are fueling the first wave of artificial intelligence adoption

Percentage already using digital assistants:

**72%** of business execs

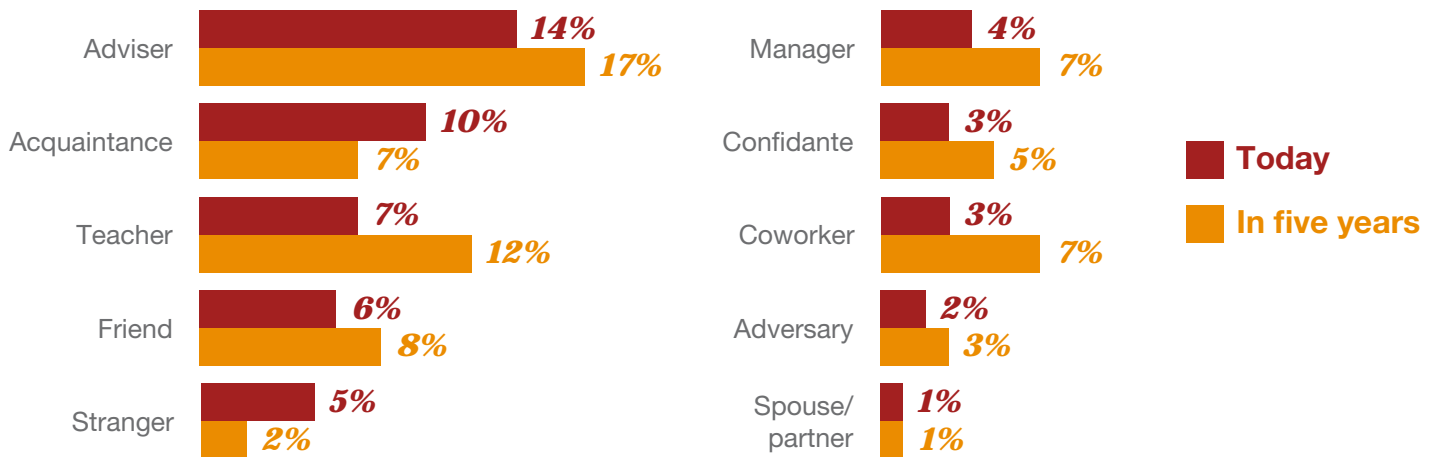
**53%** of millennials

**42%** of consumers

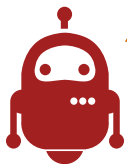
**34%** of business execs say that the time freed up from using digital assistants allows them to focus on deep thinking and creating.

## Relationship status: It's complicated

This is how consumers see their relationships with digital assistants today and in the future (% agree):



## The human-bot premium



**27%** of consumers weren't sure if their last customer service interaction was with a human or a chatbot. As the line between humans and bots becomes more blurred, consumers are looking for the best of both worlds:

**62%** believe AI can reduce the time it takes to get answers while still being highly tailored to their preferences

**43%** of millennials and 28% of business execs would pay a premium for a hybrid service run by AI that offers direct access to humans, versus a human-only service

Base: Gen pop (2000), millennials (566), business decision makers (500) – Q10. Do you currently use digital assistants, such as voice command on your phone to connected devices? Base: Business decision makers (500) – Q12-6. What are the top 3 benefits of using digital assistants - gives me more time to focus on thinking, creating, etc. Base: Gen pop (2000) – Q10. How would you describe your relationship with your digital assistant(s) today and where could you imagine it being in the next five years as technology continues to progress? Q9. Thinking back to your latest customer service issue handled online through text or chat, do you know if you were dealing with a human representative or a chatbot? Q17-2. AI can reduce the time it takes to get answers. Q17-3. AI can become highly personalized to my preferences. Base: Millennials (566), business decision makers (500) – Q15. Which customer service scenario would you pay a premium for? Choice 3: Smarter higher touch customer service run by AI and guaranteed to quickly solve your problems over text messaging that also offers direct access to humans.



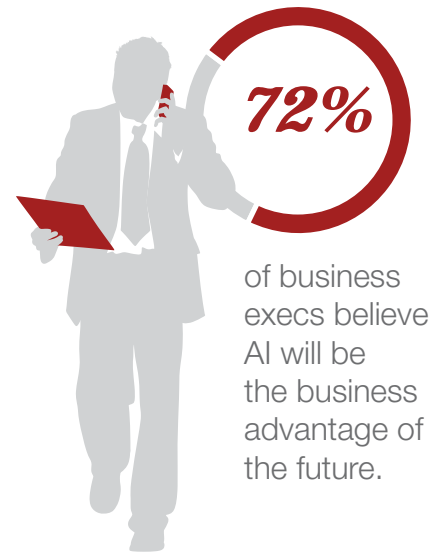
## *Amplifying management: The augmented c-suite*

In the business world, disruption has become the norm. Global markets are volatile or uncertain at best, talent turnover is a force to be reckoned with, and workweeks can be expected to regularly exceed 70 hours. Management needs more efficiency and innovations to keep up. AI has the potential to optimize processes across organizations. And businesses are betting big: 54% of business and IT executives in our Digital IQ survey tell us their companies are making substantial investments today; in three years, that number jumps to 63%.<sup>12</sup>

## Pushing business further

Seventy-two percent of business execs believe AI will be the business advantage of the future. More than half believe that utilizing AI in business settings could boost productivity, inform business strategy, and generate growth which far outweighs the potential downside of employment concerns.

While the ultimate success of AI in business will depend on how it is leveraged, many business execs have already seen the upsides of the technology. Fifty-four percent agree that AI solutions they've already implemented have benefited productivity, while 67% see the future potential of AI to automate processes and optimize business efficiency and labor productivity. They also see the potential for it to outperform humans. Seventy percent believe humans are more likely to cause errors than AI. "In the last few decades, we as mankind have made our systems much more complex. As a result, no one person can cumulatively know what is involved in any given system or solution. Our machines are becoming smarter by learning and embodying the collective experience of mankind, or a group of experts," said PwC Innovation Lead, Data & Analytics, Anand Rao.



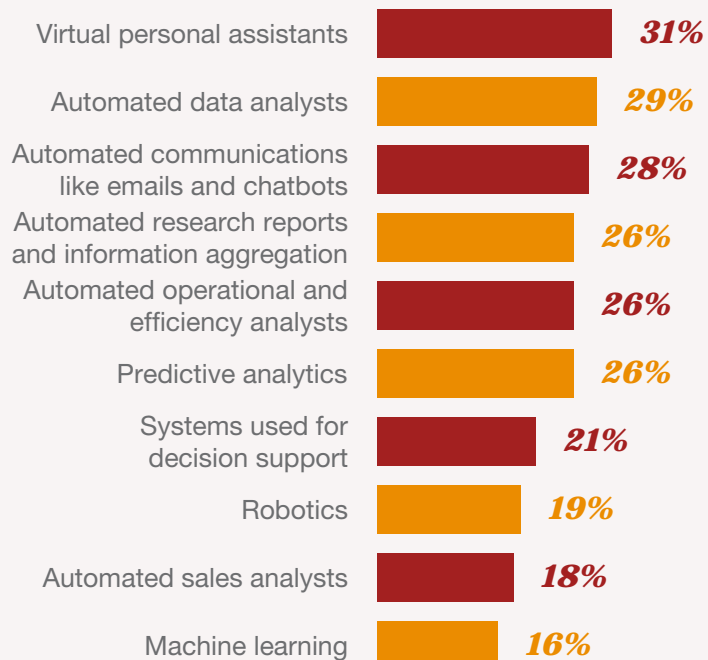
*"In the last few decades, we as mankind have made our systems much more complex. As a result, no one person can cumulatively know what is involved in any given system or solution. Our machines are becoming smarter by learning and embodying the collective experience of mankind, or a group of experts."*

- Anand Rao, Innovation Lead, Data & Analytics, PwC

## Business execs big on big data

Business execs are most optimistic about AI's potential to increase efficiencies with automated communications and alerts to enable more proactive approaches (70%) and to improve big data analytics (59%). Virtual personal assistants and automated data analysts are the AI solutions they see most impacting their businesses. For example, the UK law firm Dentons partnered with French start-up Predictice to use AI to analyze decades of historical data, using precedent to estimate the course, cost, length, and outcome of litigation.

### What AI-powered solutions do you imagine having the largest impact on your business?



Base: Business decision makers (500) – Q23. What AI-powered solutions do you imagine having the largest impact on your business?



## ***Stop the menial madness***

In their own roles, business execs see huge potential for AI to alleviate repetitive, menial tasks such as paperwork (82%), scheduling (79%), and timesheets (78%). In fact, 78% agree it will free all employees from such tasks at all levels across their organizations. Already, 34% of business execs say that the extra time freed up from using digital assistants allows them to focus on deep thinking and creating.

HR management remains an area of hesitation, with results showing it is the least likely area to be outsourced to a digital assistant. While 69% of business execs believe an artificial intelligence adviser would be as fair, or even more fair, than a human manager when it comes to promotions and raises, only 46% would consider having AI involved in decisions regarding their own personal promotions, and 86% would want to meet with a human adviser for follow-up feedback after a decision was made by AI.

## ***Human intelligence meets artificial intelligence***

Beyond boosting productivity, business execs see AI contributing to major strategic shifts in their organizations. Two-thirds believe it will provide more information during decision-making. The same amount believe it will offer employees new types of roles managing and collaborating with machines. Operating as a new type of augmented intelligence, such positions would oversee and coordinate partnerships between man and machine. Sixty-seven percent of business execs believe leveraging AI will help humans and machines work together and combine both digital and human intelligences in the best ways possible.

This combined man-machine hybrid is more powerful than either entity on its own. For example, Netflix's human team created a proprietary manual on how to assess a movie that AI can use to define over 75,000 micro-genres for more nuanced, personalized recommendations.

Business execs also see potential for AI managers to improve life for employees. The majority believe employees wouldn't mind working with an AI manager if it meant more flexibility and freedom to work from home (71%) and if it meant a more balanced workload (64%). Seventy percent also agree that AI has the potential to enable humans to concentrate on meaningful work, as well as indulge in more leisure. Humans will lean on their ability to navigate complex situations, motivate teams, understand rich social contexts, act with empathy and diplomacy, and influence others to move toward their vision—while machines automate the rest.

***67% of business execs believe leveraging AI will help humans and machines work together and combine both digital and human intelligences in the best ways possible.***

# The augmented c-suite



## Computing competitive advantage

Business execs are optimistic that AI can boost productivity and optimize processes:

**70%** agree that AI has the potential to enable humans to concentrate on meaningful work, as well as indulge in more leisure activities

**55%** believe AI's potential to boost business productivity, inform strategy, and generate growth outweighs the potential downside of employment concerns

**54%** agree that AI solutions they have implemented have benefited productivity

## Less repetitive tasks = more big thinking

Business execs are eager to outsource the following tasks to a digital assistant, freeing up more time for deep thinking and creativity:



**82%**

Paperwork



**79%**

Scheduling



**78%**

Timesheets



**69%**

Accounting



**65%**

Personal expenses



**60%**

HR functions, like benefits



**60%**

Email management



**49%**

Proposal writing



**37%**

HR management

# Embrace the revolution

AI, as a true change agent, is coming, and in many ways, its early rumblings are already being felt. It's clear that some people will eagerly adopt and integrate the new tools and ways of working it makes possible, while others will be more cautious or even oppose the changes it brings to their life or work.

An open mind will be the biggest asset in the near future, as the technology advances and we continue to experiment with how to use AI to solve problems—in our personal lives, professional lives, and society at large. Those who think practically and critically will ride the waves of these advancements instead of being left behind.

## Here's how to begin preparing for an AI future and capitalizing on its potential:



### Coach and collaborate.

In this evolving world, everyone needs to think like a teacher, director, or mentor. Humans will determine where and how machines will learn, identifying the appropriate data, guiding the training process, and refining the outputs. We'll also need to champion a new kind of teamwork, which sets goals for man-machine teams, delegates tasks for productivity, and applies the insights to new areas. Above all, we must never lose sight of the human experience, even as we embrace automation and new ways of working.



### Embrace learning and perspectives.

While AI may take on menial work and thinking, the skills that business and society need are shifting. We must cultivate creativity, adaptability, and a mindset of continuous learning. In particular, we must seek out diverse perspectives—within our businesses and communities—as we use develop the next-generation of AI-powered tools and processes. Collectively, this diversity enables us to take better advantage of AI's potential.



### Harness data.

As with most technologies, data is what fuels AI. Individuals and businesses must understand the data they have; what additional data they might need to answer questions, improve processes, or surface opportunities; and how to integrate and safeguard all of it. This requires having people in all areas of the business and government that understand data, from data scientists and analysts to data savvy marketers, business leaders, and finance specialists.



### Look for opportunity.

Business and civic leaders should begin thinking about how and where AI can make a difference. Start with human workflow and consider how machines become a more seamless part of that flow. Ask whether you want to enhance existing processes to reduce costs and improve productivity, or aspire to something new—responsive and self-driven products, services, and experiences that incorporate AI.

Above all, AI has the potential to make the world better: to improve health, to further education, to increase wealth, to create new, long-term opportunities. It will move businesses and governments forward while offering the potential to do it in a humane way by not leaving anyone behind.

While there are many obstacles to overcome, AI has the potential to solve many of today's problems and push humans even further. But this change is only possible if individuals and businesses embrace it with a goal of creating man-machine hybrids that are better together, dedicated to improving lives, products, and experiences for everyone.



## References

- <sup>1</sup> *Financial Times*. (2015, November 5). Robotics, AI to become \$153bn market by '20 – BofA. Retrieved from <http://www.ft.com/fastft/2015/11/05/robotics-ai-become-153bn-market-20-bofa/>
- <sup>2</sup> American Cancer Society. (2015). Global cancer facts & figures. Retrieved from <https://www.cancer.org/research/cancer-facts-statistics/global.html>
- <sup>3</sup> Symantec. (2016 May 3). Key findings from Symantec's 2016 internet security threat report. Retrieved from <https://www.symantec.com/content/dam/symantec/docs/infographics/istr-reporting-breaches-or-not-en.pdf>
- <sup>4</sup> United Nations High Commissioner for Refugees. (2008, December 09). Top UNHCR official warns about displacement from climate change. Retrieved from <http://www.unhcr.org/493e9bd94.html>
- <sup>5</sup> Wakefield, J. BBC. (2016, October 23). AI predicts outcome of human rights cases. Retrieved from <http://www.bbc.com/news/technology-37727387>
- <sup>6</sup> Gross, David. Strategy+business. (2016, November 9). Poll positions. Retrieved from <http://www.strategy-business.com/blog/Poll-Positions?gko=a584c>
- <sup>7</sup> Fingas, J. Engadget. (2017, February 20). AI can predict autism through babies' brain scans. Retrieved from <https://www.engadget.com/2017/02/20/ai-can-predict-autism-in-babies/>
- <sup>8</sup> Fingas, J. Engadget. (2017, January 26). AI is nearly as good as humans at identifying skin cancer. Retrieved from <https://www.engadget.com/2017/01/26/ai-rivals-humans-in-identifying-skin-cancer/>
- <sup>9</sup> UNESCO. Statistics on literacy. United Nations Educational, Scientific and Cultural Organization. Retrieved from <http://www.unesco.org/new/en/education/themes/education-building-blocks/literacy/resources/statistics/>
- <sup>10</sup> Fintech News. (2017, February 21). Ayannah launches an AI-powered credit scoring service for the unbanked. Retrieved from <http://fintechranking.com/2017/02/21/ayannah-launches-an-ai-powered-credit-scoring-service-for-the-unbanked/>
- <sup>11</sup> Hyken, S. (2016, August 29). Bad customer service costs businesses billions of dollars. Retrieved from <https://www.forbes.com/sites/shephyken/2016/08/27/bad-customer-service-costs-businesses-billions-of-dollars/#ce15fc751525>
- <sup>12</sup> PwC 2017 Global Digital IQ Survey, February 2017. <http://www.pwc.com/us/en/advisory-services/digital-iq/key-findings.html#emerging-tech>

### **More AI insights from PwC**

[Leveraging the upcoming disruptions from AI and IoT](#)

[Machine learning 101](#)

[Next in Tech Artificial Intelligence](#)

For more information on this research, the PwC Consumer Intelligence Series, or how changing consumer preferences are shaping your industry, please contact one of our specialists:

#### **Deborah Bothun**

Entertainment, Media and  
Communications  
(646) 471-9048  
[deborah.k.bothun@pwc.com](mailto:deborah.k.bothun@pwc.com)

#### **Matthew Lieberman**

Consumer Intelligence Series  
(213) 217-3326  
[matthew.lieberman@pwc.com](mailto:matthew.lieberman@pwc.com)

#### **Dr. Anand S. Rao**

Innovation Lead, Data & Analytics  
(617) 530-4691  
[anand.s.rao@pwc.com](mailto:anand.s.rao@pwc.com)

Explore other issues of this series online at [www.pwc.com/consumerintelligenceseries](http://www.pwc.com/consumerintelligenceseries)

This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisers. At PwC, our purpose is to build trust in society and solve important problems. PwC is a network of firms in 157 countries with more than 223,000 people who are committed to delivering quality in assurance, advisory, and tax services.

Find out more and tell us what matters to you by visiting us at [www.pwc.com/US](http://www.pwc.com/US).