



The rise of the bots

Bing Network. Intelligent search.

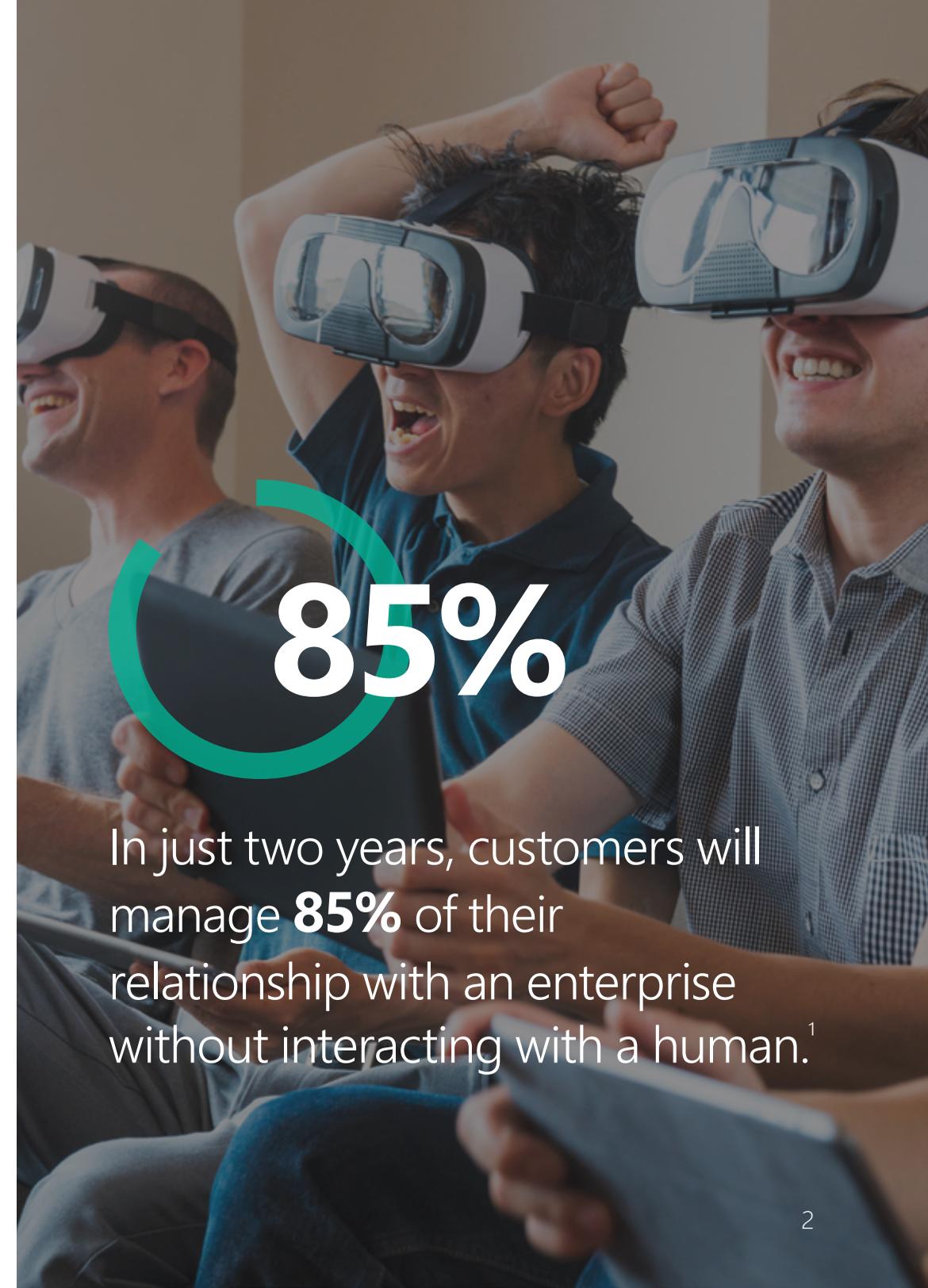


Forge stronger customer connections

Every day, consumers turn to digital technology to interact with the world. They use their smartphones, wearable devices and virtual assistants to get the latest news headlines, find the local weather forecast and learn about their favorite fashion brand.

To truly resonate with this new breed of consumer, adaptive organizations are embracing the latest, most cutting-edge tools, apps and bots powered by artificial intelligence (AI).

It is undeniable: The rise of the bots is empowering marketers to forge stronger relationships with their customers.



85%

In just two years, customers will manage **85%** of their relationship with an enterprise without interacting with a human.¹

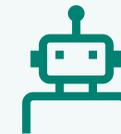
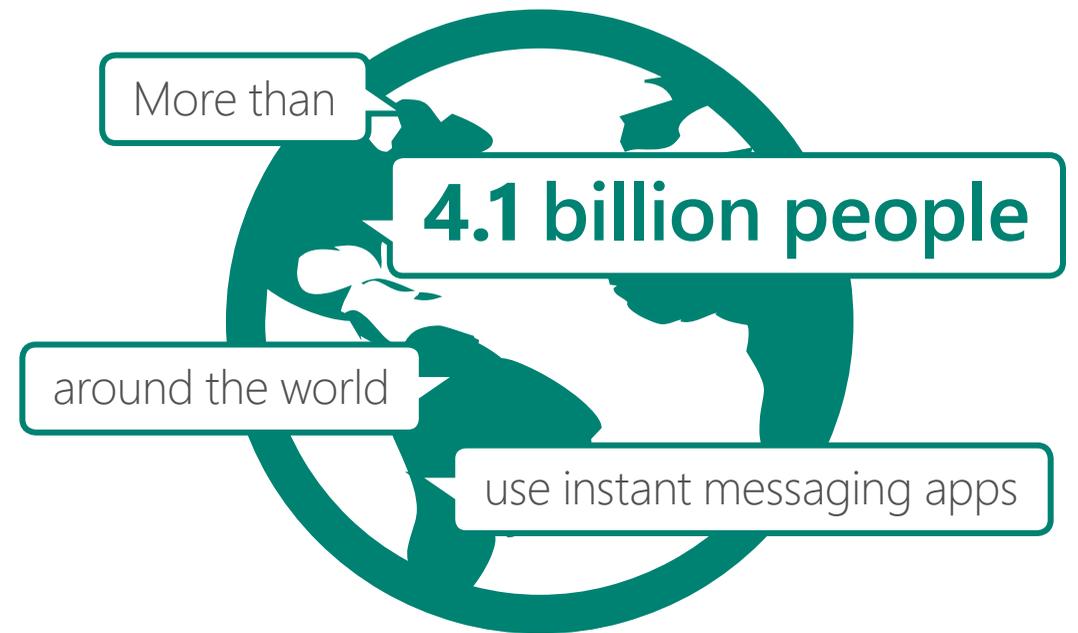
1. "Digital Assistants: Reordering consumer lives and redefining digital marketing," Bing/iProspect, 2017.

Messaging apps reshape the future of customer service

While most app usage is falling, instant messaging app usage is soaring. Today, 4.1 billion users are executing a variety of tasks from within them.²

Kik Messenger, which targets the teen market, allows users to order food and products through automated chat conversations. In 2016, it incorporated video chat capabilities³ and added “concierge bots” that share tips, tutorials and recommendations with users chatting with a fashion or beauty brand’s bot.⁴ As of May 2016, Kik had amassed about 300 million registered users.⁵

This kind of immersive engagement offers businesses ideal opportunities to build instant connections in context, appearing when and where customers need them. Even better, it gives consumers relevant answers without the cost and complexity of a call center.



But just how do you join conversations at these ideal moments?

MEET THE CHATBOTS

2. “Why Social Media Chat Bots Are the Future of Communication,” BI Intelligence, June 9, 2016.
3. “Kik now has video chatting capabilities in latest update,” Android Community, December 21, 2016.
4. “Kik continues to push the envelope with launch of new chatbot feature,” BI Intelligence, September 30, 2016.
5. “22 Important Kik Messenger Stats,” DMR, January 7, 2017.

Xiaoice from Microsoft
has garnered over

40 million users.



Bots are the new apps

Bots introduce a human factor to search, fostering relationships between brands and consumers with less friction. And they'll soon be an integral part of the digital experience. Already, an artificially intelligent chatbot named Xiaoice, developed by Microsoft for the Chinese market, has garnered over 40 million users — many of whom feel a personal connection with “her.”⁶

In simple terms, bots are computer programs that talk with and sound like humans. But their capabilities are anything but simple. Structural engineers can use AI software to alert them when a bridge threatens to fail. Bots can scan medical records to detect patients’ genetic conditions, without so much as a single doctor’s visit.⁷

Facebook CEO Mark Zuckerberg has even hinted at bots’ promising future as agents that could,

say, detect when someone might be suicidal and step in to deliver life-saving tools to their friends and communities.⁸

Bots deliver a richer experience than a simple question-and-answer session. Xiaoice, for example, can contribute to a chat she’s been added to with contextually appropriate facts, empathy and humor.⁹ Users frequently chat with her for extended periods of time, just as they would a real person.¹⁰

Brands are beginning to experiment with the Microsoft Bot Framework, which is designed to make it easier for companies to build, deploy and manage high-quality bots on any platform — even if they don’t have a lot of programming experience.

6. Microsoft Internal Data, November 2016.

7. “Artificial intelligence has a big year ahead,” CNET, December 14, 2016.

8. “Building Global Community,” Facebook, February 16, 2017.

9. “This Chinese Chat Bot is Turning the Movie ‘Her’ into Real Life,” Mic, July 31, 2015.

10. “For Sympathetic Ear, More Chinese Turn to Smartphone Program,” The New York Times, July 31, 2015.

Digital assistants pave the way for voice-powered commerce

Digital assistants take bots a step further, acting as consumers' personal concierges. Digital assistants interact with other bots to answer questions and execute a variety of tasks, and they're ultimately driving customers happily toward an eventual screen-less experience.

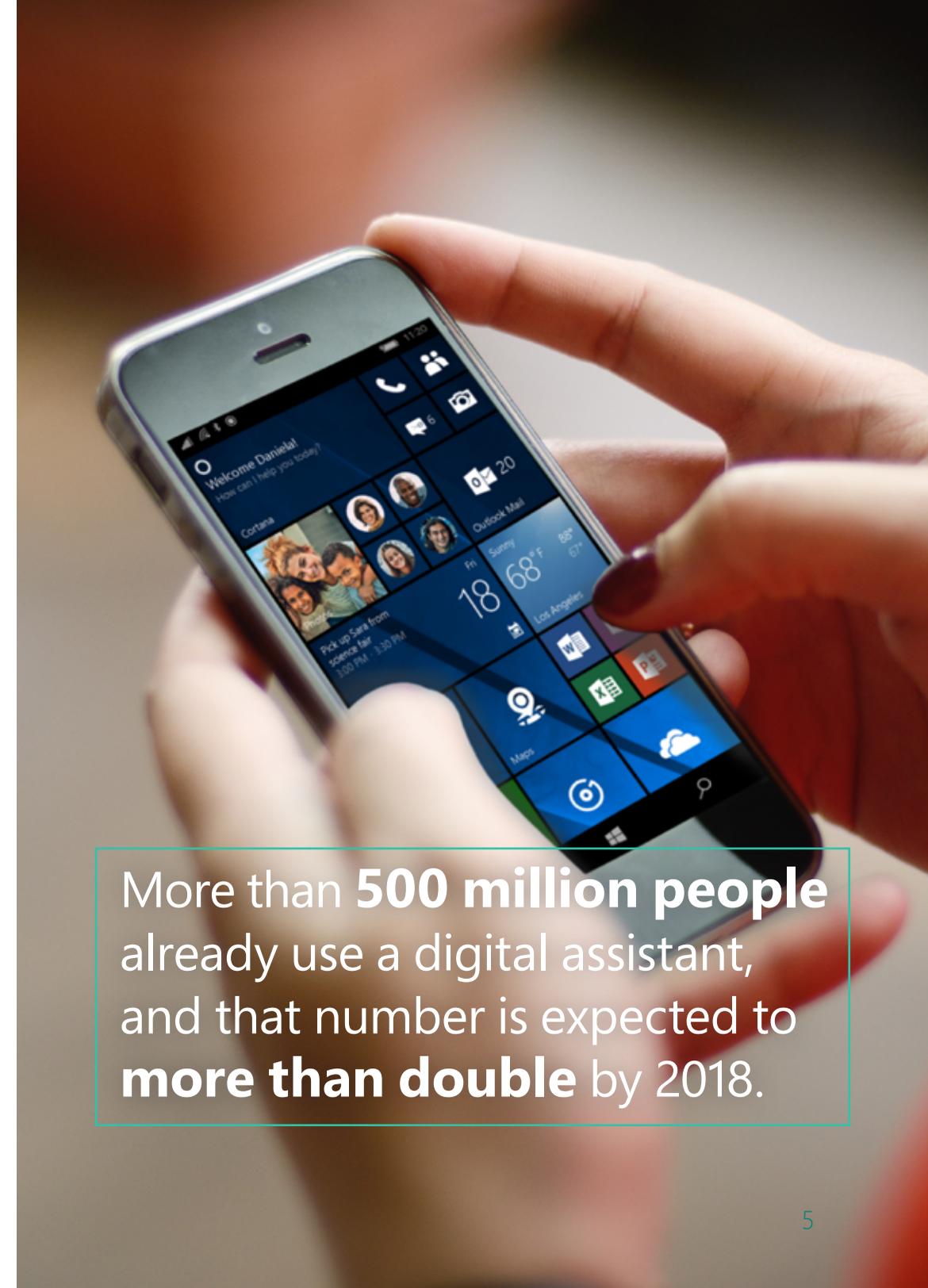
Today, more than 500 million people use a digital assistant of some kind,¹¹ whether they're finding the nearest gas station with Siri, checking their schedule with Cortana or having Alexa read their children a bedtime story. That number is expected to more than double by 2018.¹²

Customers will increasingly offload searches and tasks to digital assistants, which have the ability to learn users' specific needs and preferences. When a user says, "order Starbucks," Cortana already knows she wants a "grande half-caf, no-foam latte" and places her order for pickup.

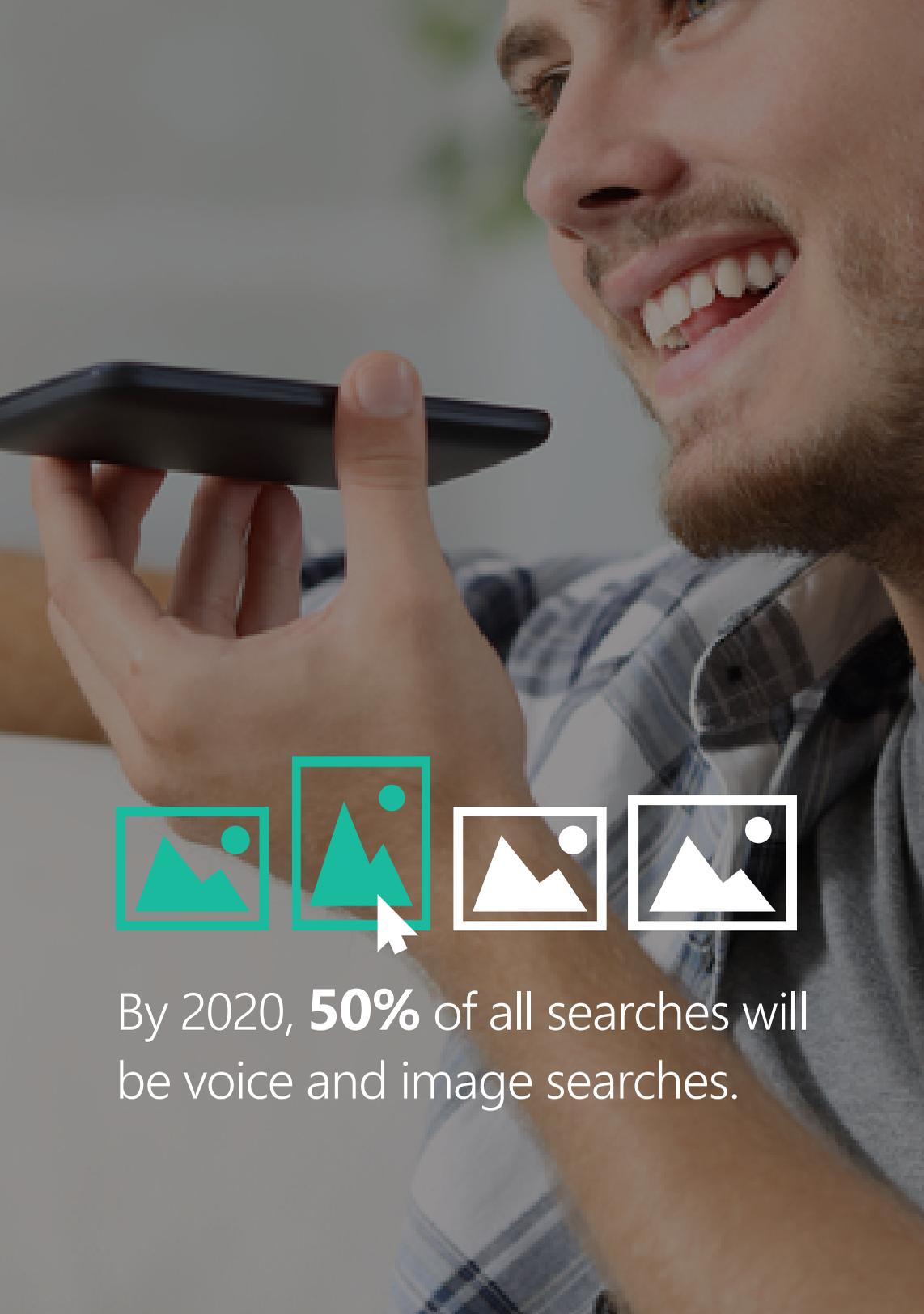
We're fast approaching a voice-based conversational commerce environment. The easier you make it for a digital assistant to access your brand's information, through web content for example, the better the odds that the assistant will surface and repeat your information to the right customer at the right time.

11. "Virtual Digital Assistants Report," Tractica, August 3, 2016.

12. "Virtual Digital Assistants Report," Tractica, August 3, 2016.



More than **500 million people** already use a digital assistant, and that number is expected to **more than double** by 2018.



Is 2017 the year of voice search?

Consumers are relying more on digital assistants, which is accelerating the adoption of voice-powered search and a wider array of speaker-connected and sensor-enabled devices in homes, cars, wearable medical devices, and even vending machines and refrigerators.

Forbes predicted that “2017 will be the year of voice search,”¹³ and the trend will continue upward: Data Scientists at Baidu predict that 50% of searches will be voice and image searches within the next two years.¹⁴

This is a monumental shift for marketers, who’ll need to adapt their strategies to these longer, more conversational searches. Fluency in this new language of search means pivoting from terse, keyword-based search to longer questions and phrases that mimic natural speech. “Tax help” becomes “tips for filing my 2017 taxes” or “where can I find a good tax accountant?”

Bing is at the forefront of these advances, spearheading the development of more robust consumer intent signals. It provides the intelligence that connects the entire Microsoft ecosystem — from Windows 10 and Cortana to Xbox and Office.

13. “[2017 Will be the Year of Voice Search](#),” Forbes, January 3, 2017.

14. “[What does Meeker’s Internet Trends report tell us about voice search?](#)” June 3, 2016.



By 2020, **50%** of all searches will be voice and image searches.

Artificial intelligence translates data into action

Artificial intelligence makes bots, voice search and digital assistants possible and useful. The same machine-learning technology that makes these breakthroughs possible allows us to gather and make sense of the data they accumulate.

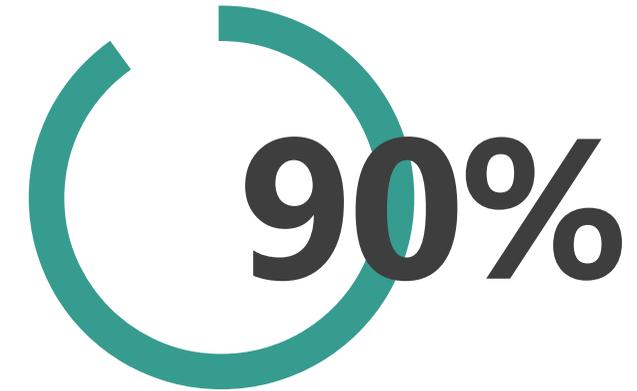
As a result, data is being generated at a higher velocity than ever before. Every day, we create 2.5 quintillion bytes of data, according to IBM, and 90% of the data in the world today was created in the past two years alone.¹⁵

Marketers have long struggled to mine and analyze data so they can better understand their prospects and customers. AI is empowering them to do just that. Using machine learning, AI helps companies make experiences smarter and simpler. It powers Pandora to suggest music you

might enjoy based on what you've listened to in the past and allows a Nest thermostat to keep your home at your preferred temperature.

AI also empowers brands to collect deep intelligence about customer behaviors and preferences, ultimately allowing them to predict *future* behaviors. This presents big opportunities for marketers today.

The confluence of machine learning and search technology has delivered unprecedented potential for predictive analytics. Bing searches are, for example, alerting researchers when people's searches indicate early warning signs of pancreatic cancer — a methodology that more than doubles the survival rate.¹⁶



90% of the data in the world today was created in the past two years alone.

15. ["What is big data?"](#) IBM, March 1, 2017.

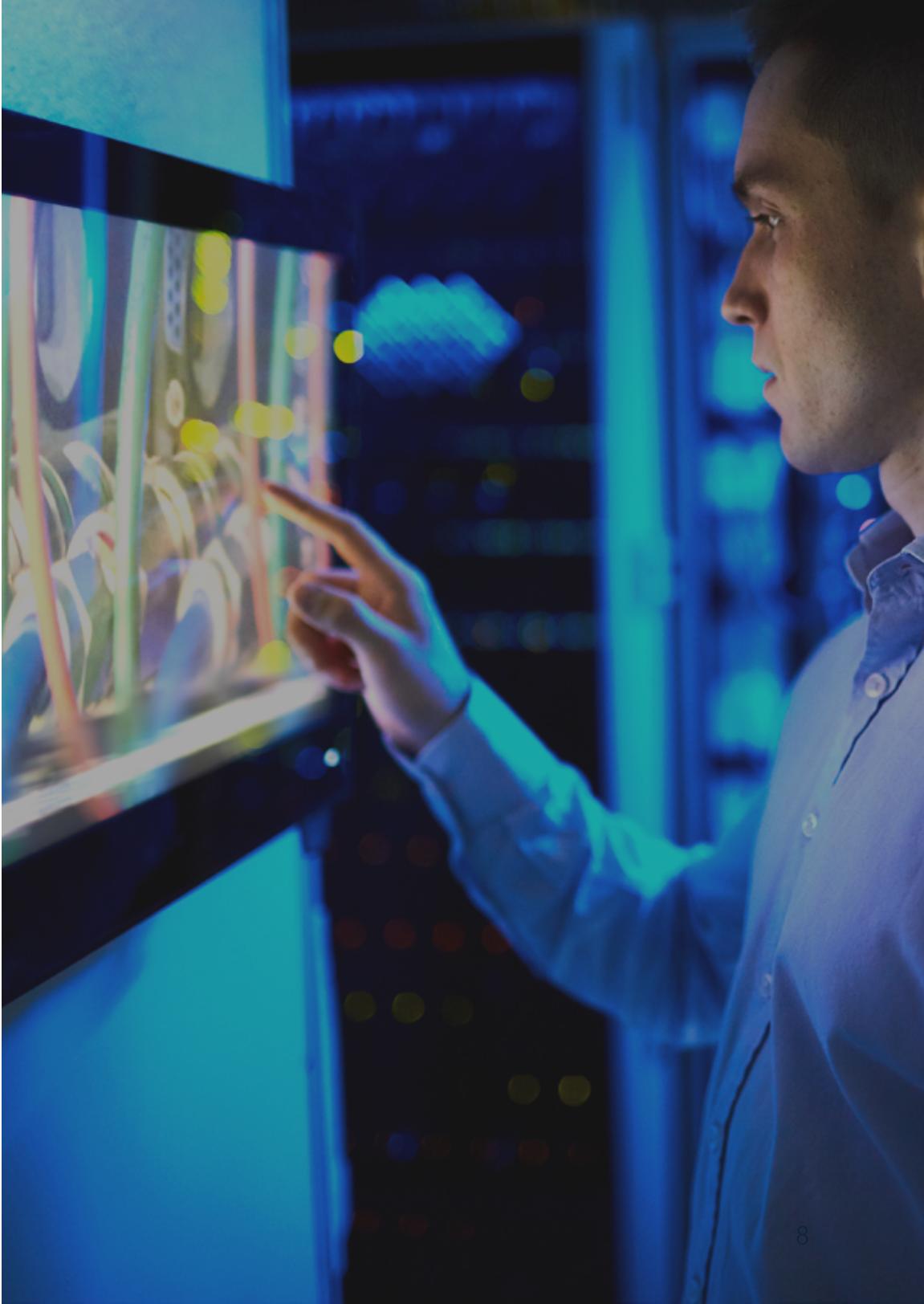
16. ["Microsoft Finds Cancer Clues in Search Queries,"](#) The New York Times, June 7, 2016.

Prepare for the digital transformation

In the age of digital disruption, search can be the multi-tool that helps you create the rich experiences consumers are beginning to demand. **Learn how** other successful marketers are adapting and embracing these emerging technologies by downloading our eBook or audiobook: “Braving Digital Transformation: The modern marketing multi-tool.”

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