

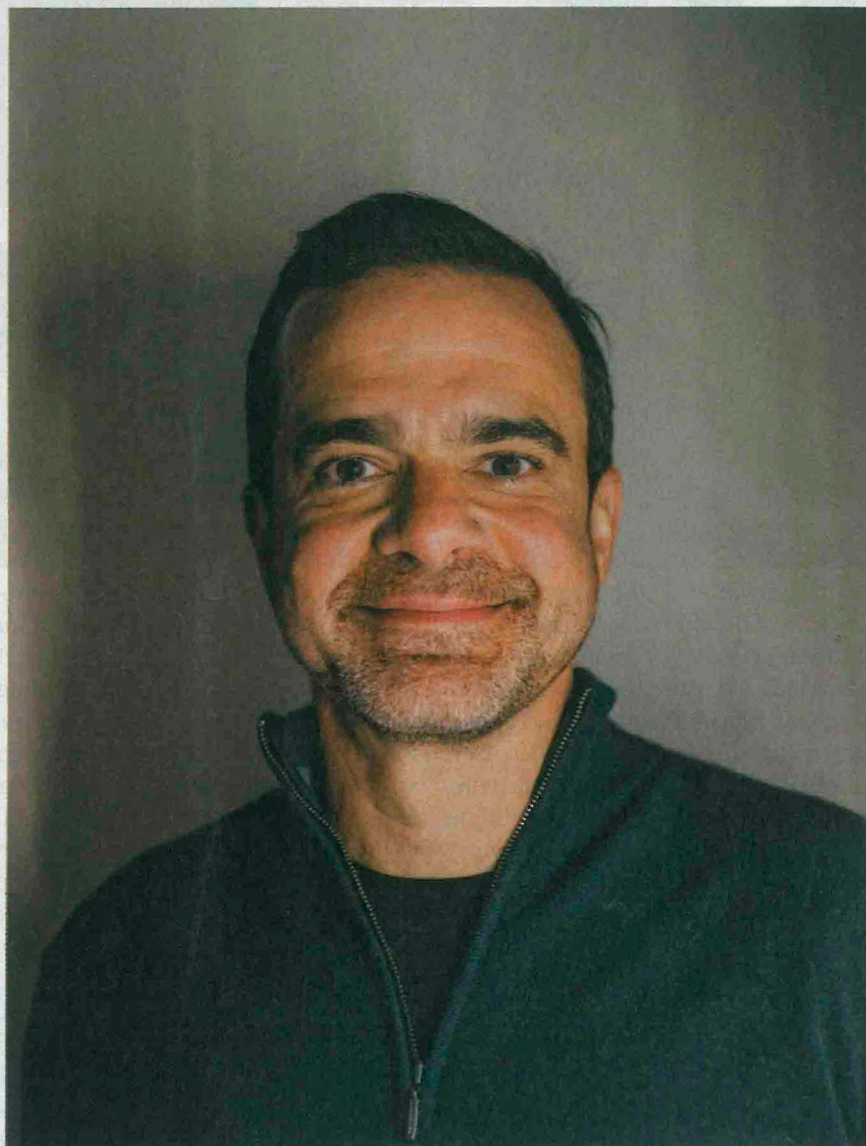
LOOK AHEAD

● As Alphabet reports earnings, investors can evaluate the damage from YouTube advertiser boycotts

● Facebook's earnings will test whether ad sales can keep shares rising after their March nosedive

● Investors in Microsoft will watch earnings for evidence it can snatch market share from Amazon's cloud

Amazon's Other Jeff



Jeff Wilke, Bezos' No. 2, talks AI plans and says his delivery business has plenty of ways to work around Trump

Donald Trump has hammered Amazon.com Inc.'s share price in recent weeks by trying to pick fights online with Chief Executive Officer Jeff Bezos. But the actual object of his Twitter onslaught is the domain of Jeff Wilke, Bezos' right-hand man for most of the past 18 years. Wilke runs Amazon's worldwide consumer division, meaning he's in charge of both selling people stuff and figuring out how to deliver

the items as efficiently as possible. Often, the company uses the U.S. Postal Service. That's an arrangement Trump has repeatedly threatened to hamper, arguing that it's ruinously unprofitable for taxpayers.

In Amazon's first public response to the president's criticism, Wilke says the business has been a win-win. "We've been around through four presidents and leadership changes all over the world,"

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he says. “For more than two decades, we’ve worked with the post office to invent and deliver for customers and business all over the U.S. profitably, creating a bunch of jobs in the process. It’s been a terrific partnership, and I hope it will remain so.”

Amazon relies on the Postal Service for the so-called last mile (delivery from warehouses to customers’ homes) on as many as 40 percent of all U.S. orders, according to analyst estimates. While the relationship is mutually beneficial—the mail carriers are getting paid for otherwise unused capacity—it saves Amazon an estimated \$2.6 billion a year vs. the rates at independent couriers such as United Parcel Service Inc. and FedEx Corp. Trump recently ordered a review of the Postal Service’s finances and suggested on Twitter that it might start charging Amazon higher delivery rates. Wilke says the company has other options, including UPS, FedEx, and its own couriers. “There are a bunch of ways to get product to the last mile all over the country,” he says.

At 51, Wilke is just beginning to take a more public role in shaping Amazon’s agenda, which includes advancing its technological ambitions as well as playing defense against presidential tweets. When he started at Amazon, the company was struggling to figure out how to profitably build warehouses that could deliver packages to customers’ homes. Wilke took over North American retail in 2007 and, despite the Great Recession, built Amazon Prime memberships into a gargantuan sales machine. He added music and video streaming, narrowed delivery times to as little as an hour for certain products in dozens of cities, and watched the company’s revenue grow more than tenfold, to \$178 billion.

The downsides have been well-publicized. In 2011 news reports of its brutal warehouse working conditions led Amazon to publicly commit to reforms, including \$50 million in new air conditioning across its U.S. facilities. And the company has taken various steps to soften its corporate image after a 2015 *New York Times* report described a cut-throat atmosphere where backstabbing flourished. Through it all, Wilke thrived. In 2016, Bezos named him CEO of the global consumer business, overseeing everything from the website and customer service to the Kindle and the Echo.

Wilke is a Pittsburgh native with, at least by Bezos standards, a relatively easygoing vibe. (Colleagues refer to him by his initials, JAW, to avoid confusing him with the other Jeff.) With degrees from Princeton and MIT, he came to Amazon from Allied Signal (now Honeywell International Inc.), where he ran a division that made pharmaceutical chemicals. He wears a ton of flannel during the holiday season and still dreams of being able to throw

a 100 mph fastball. But former Amazon execs say he shares with Bezos a propensity for grand (and risky) experiments. “Wilke is a big supporter of crazy ideas,” says Neil Ackerman, a former colleague who once proposed that Amazon use the empty space aboard returning delivery trucks to get into the recycling business.

These days, Wilke is focused largely on advancing Amazon’s artificial intelligence and machine learning tools, technologies also being pursued by rivals including Google parent Alphabet, Apple, and Facebook. All the tech giants are competing to prove their AI bona fides, hire the top researchers and computer scientists, and pioneer the next generation of smart, intuitive computing services.

Google is the undisputed leader in the research community—making headlines with AI that can, say, beat top human players at the complex Chinese game Go. But Amazon may have the lead in applying machine learning to things you can buy. Wilke’s team basically invented the smart speaker category with the Echo. In the past four years, Amazon has sold tens of millions of Echo speakers and other devices carrying the company’s digital assistant, Alexa. “I don’t think they want to be the people who beat the world champion in Go,” says Oren Etzioni, CEO of the Allen Institute for Artificial Intelligence and a computer science professor at the University of Washington. “They want to be the people who roll out very successful AI-based products.”

Although Amazon’s product recommendations and search engines now benefit from some of its AI advances, other, more visible efforts clearly need more work. That includes the Echo; Wilke acknowledges that it’s often difficult to get the devices to respond conversationally. “Sometimes it takes four or five questions to zero in on what somebody wants,” he says. The company also has yet to add cashierless Amazon stores beyond a test model in Seattle, which opened to employees in late 2016 and to the public earlier this year. The store, called Amazon Go, uses AI algorithms and dozens of video cameras affixed to the ceiling to track when people take sandwiches, snacks, and drinks from shelves, charging them as they walk out.

Wilke says that while the store’s testing phase is over, there are bugs to work out. “We want to reduce those as much as we can, which will make it more cost-effective,” he says. He wouldn’t discuss expansion plans beyond saying the no-cashiers model is unlikely to extend to Amazon’s 470 Whole Foods Market stores.

Amazon’s most significant use of AI, in its network of about 240 warehouses, is less visible. It does, however, play into anxieties that the technology ►

“I don’t think they want to be the people who beat the world champion in Go”

◀ could one day replace human labor. The company is using some 130,000 Kiva robots, conveyors that look like jumbo Roombas and move whole shelves around warehouse floors, sparing workers from having to walk miles each day to retrieve items. Amazon's researchers are working to train robots to identify and grab products from shelves, too, though the company has canceled an annual "pick challenge" in which teams of researchers competed to build the best grasping robot.

While that sounds like it can't help but eliminate human workers, Wilke says automation will just shift Amazon warehouse staffers to higher-order tasks. "That's going to continue for as long as we have the ability to provide training and skills to people," he says. Amazon added 130,000 employees worldwide last year, mostly in its warehouses.

Despite its size, Amazon's retail business remains inherently low-margin. Investors are much happier with Amazon Web Services, its fast-growing, megaprofitable cloud computing arm. That's where the other big Bezos deputy, Andy Jassy, resides. When Bezos tapped Wilke as consumer CEO, he also made Jassy CEO of the cloud.

The consumer business is more mature, but Wilke isn't ready to concede that AWS will one day be the bigger business, as Bezos has occasionally suggested. He's especially focused on expanding the U.S.-centric retailer into India, Australia, and Brazil. "We think the worldwide retail market is \$25 trillion," Wilke says. "We round to less than 1 percent of that." —*Brad Stone and Spencer Soper*

THE BOTTOM LINE Bezos deputy Wilke is pushing into new markets and AI frontiers while thinking through backup plans if Trump delivers on his threats against Amazon's postage rates.