ZEITGUIDE

Your Guide to What Matters In Our Constantly Changing Culture

2019 | **HEALTHY BUSINESS, HEALTHY SELF**

What Business And Cultural Leaders Say About ZEITGUIDE

"ZEITGUIDE is a powerful and provocative tool that promotes relevance in the most dynamic era of our time."
~ Bob Iger, CEO of The Walt Disney Company

"ZEITGUIDE is the Human CliffsNotes."
~ Beth Comstock, Former Vice Chair GE

"ZEITGUIDE is your go-to source to know anything quickly and comprehensively."
~ Linda Boff, CMO of GE

"I rely on ZEITGUIDE for the speed and accuracy of the insights they deliver on our constantly changing culture."
~ Geoff Walker,CEO of KidKraft

"ZEITGUIDE synthesizes information about our constantly changing world in a digestible and engaging format."
~ Pam Kaufman, Viacom/Nickelodeon
President of Consumer Products

**"I have an advantage in every room.
It's called ZEITGUIDE."**
~ Ross Martin, CEO of Blackbird

"ZEITGUIDE is about understanding the things that matter, which so few people understand."
~ Gary Vaynerchuk, CEO of VaynerMedia

"ZEITGUIDE is a window into our cultural soul. And in our business, there is nothing more important than being able to add insight to the reams of data that flood our senses."

~ David Sable, Global CEO, VMLY&R

"ZEITGUIDE always surprises me, always has something to teach me and keeps me smart."

~ David Nevins, Chief Creative Officer at CBS and President of Showtime Networks

"ZEITGUIDE tells me what's just around the corner. It's the first to answer those questions that are on the tip of every smart person's tongue, but nobody quite has the words for yet."

~ Alexander Jutkowitz, CEO of Group SJR

"ZEITGUIDE is relentless about staying at the bleeding edge of the conversation. A powerful tool for everyone at the mercy of the new velocity of change."

~ Katia Beauchamp, CEO & Co-Founder of Birchbox

"ZEITGUIDE always understands the heartbeat of what matters."

~ Brian Grazer, Academy-and Emmy-Award Winning Producer and Author of "A Curious Mind"

ZEITGUIDE

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Hundreds of sources were used to substantiate our findings and they are all linked to in the web version on zeitguide.com

FOUNDER'S NOTE

To the cultural and business leader of today, the accelerating speed of the world means more anxiety and pressure to keep up. In an instant, well-established businesses are finding themselves disrupted by new competitors. Trends can heat up, hit the mainstream and then dissipate in days.

Add to that the stress of what every person, no matter their position, is bombarded with on a daily basis. Cataclysms, whether from natural events or the worst of humanity, seem to occur with greater frequency. A stock market on the upswing for years is showing signs of instability, eliciting whispers of another coming recession. Technology intended to make us more connected has been used to foment greater divisions. All of this is occurring at a time when our trust and faith in leaders, both business and political, sinks lower by the day.

And that's where we want to begin 2019: considering the importance of your own well-being to operate a strong business as well as to effect wholesome change in the world. As you know, every January, we at ZEITGUIDE pick a theme that we believe will be predominant in our daily lives throughout the year ahead. **Our theme for 2019 is "Healthy Business; Healthy Self."** As you read these pages, be mindful of the importance of a healthy self to run a business that is robust and healthy, and how those things, in turn, can promote and spread healthy change in the world.

At ZEITGUIDE, we cover everything you need to look out for, not to make you more worried, but to make you better prepared. We do so because we believe that each of us, in our own way, can play a role in addressing these problems by being equipped with a better understanding of what they are.

And we also know that our ability to respond is only as great as how well we prepare ourselves mentally, physically and emotionally to be adaptive and receptive to change. Taking care of everything else, after all, can only happen after we take care of ourselves.

Keep Learning,

Brad Grossman
Founder & CEO, ZEITGUIDE

This is the second year of our ZEITGUIDE Quarterly Cultural Almanac (it was produced annually from 2013-2017). The editions in April, July, and November will show you where we've gone since the preceding quarter and look ahead to the next one—and beyond. We look forward to continuing this theme, and the conversation around it, in the months ahead.

WORKPLACE

If there has been a central theme to most workplace coverage over the last several years, it's been exposing what makes for an unhealthy work environment. The #MeToo movement has been the most visible example as it pushed many industries to reconcile with bad behavior among their ranks, headlined by a number of high-profile executive departures. Light has been shed on **unsafe work conditions** (notably with unsafe conditions for Tesla's factory workers) as well as **inadequate compensation** (particularly with Amazon's warehouse workers). And workplace cultures, known for **employee burnout** or mental, **physical and emotional abuse** from superiors, have been called to task. Lastly, more and more attention continues focus on issues of fair treatment, whether having to do **with equal compensation for women** or hiring practices that exclude **minority candidates.**

Point being, if you don't know what an unhealthy workplace looks like by now, you haven't been paying attention.

Now, as we turn the page to 2019, we expect our focus will turn from who's doing it wrong to who's getting it right.

So, what defines a healthy, productive workplace in 2019?

WORKPLACE

WHAT DEFINES A HEALTHY BUSINESS?

An Honest Workplace

Netflix earned attention from a Wall Street Journal investigation that painted a picture of a spare-no-feelings culture, complete with its own lingo. For example, "**sunshines**" are when an employee has to offer an apology or explanation in front of hundreds at the company, or when terminated employees are told they're being let go—and why—in front of their colleagues. Bosses at a director level can see the salary of every employee at the company, and managers are encouraged to apply the "keeper test" by asking whether they would fight to keep a given employee. If not, according to the Netflix philosophy, they should let that person go.

This culture of extreme openness and honesty can be, as some former Netflixers have noted, cutthroat and demoralizing. But it's also been credited in helping to fuel the company's ascendant growth. The upshot for Netflix is it gets to quickly weed out those who don't fit into its culture.

"We realized that when we had the right people, the right focus and the right deadlines, people operated pretty independently," said Patty McCord, former chief talent officer at Netflix. "It was about adults. It was about them knowing what they were doing. It's about having people who are passionate about the work that [they] need to get done."

So, should your workplace adopt the same strategy of brutal honesty? Not necessarily. Not every company offers the same degree of competitive compensation and other perks that make it worthwhile to stick in such an intense atmosphere as Netflix. **But every company should insist on setting a culture and finding people who will thrive within it.**

"What will distinguish the most profitable companies from the rest in the coming year won't be whether they offer foosball or free food," writes Sue Shellenbarger in the Wall Street Journal. "It will be whether leaders foster a workplace culture where employees feel a sense of belonging, like their jobs and trust their managers to help them move on to a better one."

Listen & Lead

Employees are becoming more proactive about speaking out when they feel their company is straying into morally or ethically dubious territory. You may recall last year when Google dealt with pushback from employees over plans to build a censored search engine, Dragonfly, for the Chinese market. In December, the company revealed that project has been shelved, at least for the short term—a decision motivated in part by employee objections.

This isn't the first time Google employees caused the company to change course. A November walkout of 20,000 employees to protest the company's handling of sexual harassment allegations against top employees led Google to announce it would be **ending its policy of forced arbitration.** Forced arbitration is when employees waive their right to sue their employer, with complaints being handled in confidential arbitration hearings with mediators chosen and retained by the companies, not employees.

A number of Google employees then launched a protest using social media in January demanding the company end forced arbitration for any case of harassment or discrimination, not just for complaints related to sexual misconduct. The workers also went after a policy, common among large companies, prohibiting groups of employees from bringing class action lawsuits.

Google numbers among a select group of the most powerful companies in the world, but even that lofty

position is only as secure as its ability to continue to attract the best available talent. That means **the company has to remain proactive in addressing employees' concerns.** And surely, that suggests no company should be immune from the same level of employee accountability.

Most people, after all, want to know that their company is doing something positive for the world. To that point, there's also growing demand for business leaders to set the tone outside of the workplace by speaking up and leading change on important social, political and global issues. The 2019 Edelman Trust Barometer found 76 percent of respondents are looking to CEOs to lead change, an 11 point increase from 2018. And 75 percent of respondents trust their employer to take the right action.

A Healthier Workspace

Startups and tech giants pioneered open office concepts and workplaces replete with coffee bars, climbing walls and bean bag chairs. These new approaches to designing the workplace had a few goals, namely, encouraging employees to be more collaborative.

There's just one small issue with open offices: they actually make employees less likely to work collaboratively. A study by Harvard Business School found open offices reduce face-to-face interaction between employees by 73 percent. A major reason for this is that employees

tend to become less communicative when it's harder for them to concentrate.

Despite evidence that open offices make it harder to get things done, don't expect many companies to abandon these designs, as **this system makes it easier to cram more people into a smaller space.** Those savings mean you're not likely to get your office back, but perhaps your employer will be so kind as to offer you an office pod—a phone-booth-sized workspace that's becoming more common. The average square feet per person in American offices has been reduced by one third since 2010 and continues to fall. (Try not to overthink that, while many states have laws mandating cage sizes for livestock, there's no minimum office size for workers.)

While workers can't count on getting any more space, employers are taking other steps to create a healthier work environment. You may recall that more companies are adopting the **WELL Building Standard,** discussed in Q4, which has criteria across seven categories: **air, comfort, fitness, light, mind, water and nourishment.** The approach is a way for employers to give greater attention to employee wellness to improve productivity, retention and recruitment. Everything from the quality of a building's air filters to the kind of snacks in the break room comes under consideration.

WORKPLACE

HEALTHY LEADERS

Bold, aggressive and unwaveringly confident have long been the hallmark traits of CEOs. But facing intense scrutiny from the media, the public and investors in 2018, many companies have found themselves needing to recast their CEOs in a softer, more approachable light.

Think of today's most visible CEOs: Mark Zuckerberg (Facebook), Sundar Pichai (Google), Elon Musk (Tesla), Evan Spiegel (Snapchat) and Jeff Bezos (Amazon). "These CEOs got to where they are by largely ignoring their detractors … That approach won't fly when the world is angry and scared about the impact of your creations," writes Jessica Lessin in The Information.

So, what qualities stand out among the latest crop of company heads? There's the "soft-spoken" new head of WPP, Mark Read, coming after years of the outgoing Martin Sorrell at the helm. Uber installed the "humble" and "no-nonsense" Dara Khosrowshahi after ousting the abrasive Travis Kalanick. At Microsoft, the "unassuming" Satya Nadella has followed the "famously exuberant" Steve Ballmer. GE, where Jack Welch once embodied the popular image of the swaggering CEO, is now in the hands of the "no-frills, media shy" Larry Culp.

In this world, the old my-way-or-the-highway attitude doesn't fly. Leaders need to project warmth, which is a composite of interpersonal skills—**active listening, authenticity, empathy and connectivity.** Getting those qualities right is crucial because employees who trust and connect to their CEO's vision will go to great lengths to make it happen. And by turning to milder CEOs, companies may also find it easier to develop a company culture focused more on the needs of employees than those of a single, dynamic executive.

Moving away from old archetypes for CEOs may also help with efforts to bring a greater diversity of faces into the boardroom. Currently, just 27 Fortune 500 CEOs are women. In 2018, there were five notable women who stepped down or retired from CEO positions—Irene Rosenfeld at Mondelez, Denise Morrison at Campbell Soup Company, Margo Georgiadis at Mattel, Sherilyn S. McCoy at Avon and Meg Whitman at Hewlett-Packard. All five were replaced by men.

Women and minorities have made modest gains on corporate boards. A study by the Alliance for Board Diversity found that 38.6 percent of board seats at Fortune 100 companies were occupied by women and minorities in 2018, up from 35.9 percent in 2016. **Having more diverse and balanced boards will become critical as a diversifying workforce looks for greater representation in its leadership.**

And if companies themselves don't diversify their leadership, governments may further compel them to. A California law mandating women on corporate boards went into effect to start 2019, with a similar law being considered by legislators in New Jersey.

WORKPLACE

HEALTHY EMPLOYEES

In the U.S., a person's workplace can have a lot to do with how healthy they are. In 2016, around **56 percent of Americans were insured through their job**—a unique dynamic among wealthy, industrialized countries that prompts employees to seek out, or remain in, certain jobs for the health benefits.

With employers so entangled in the healthcare system, they stand to play pivotal a role in improving it. That is, at least, the hope at the center of a joint venture between Amazon, JPMorgan Chase and Berkshire Hathaway to cut healthcare costs for their 1.2 million combined workers.

One approach among larger companies has been providing onsite clinics, which often receive a set monthly fee for each person on a company health plan. Fixing the cost increases the focus on preventative care and removes the profit incentive to charge for additional tests or scans that may be unnecessary and raise the overall cost. In 2017, some 33 percent of U.S.

companies with more than 5,000 employees offered some kind of onsite health clinic.

Another such example is the **proliferation of work wellness programs, which businesses today see as means to happier, healthier, more productive employees** (and, critically, as a way to save on insurance premiums, considering healthy workers are more productive and get sick less often than unhealthy ones). These efforts might come through as swapping in healthy snacks in the break room or providing gym membership discounts. Increasingly, however, **companies are tying financial incentives to healthier behavior:** Employees may be asked to check certain boxes each month, like walking for a certain amount of time each day, to avoid seeing their insurance premiums raised.

Tracking your workforce's health behavior is also getting easier thanks to digital technology. Companies today are collecting more health information on employees from Fitbits or smart office equipment that monitor how long employees may be sitting at their desk in a given day.

So, where's the line separating a caring workplace from a creepy one? And should meeting certain wellness requirements be allowed to become a condition of employment?

"If the restrictions of who can control your data and access your data are eroded, then information can conceivably be used to discriminate, whether you know it or you don't," says attorney Jason Chung.

WORKPLACE

ZEITBITES

Brain Zapping

How do you get over that afternoon slump in focus and energy? One new development might replace that afternoon coffee break: **transcranial direct-current stimulation (tDCS).** This process, which some refer to as "brain zapping," involves sending a low level of electric current to a targeted region of the brain to stimulate the neurons. This temporarily makes the brain better at hard-coding whatever activity it's doing.

The firm Halo Neuroscience, founded by Dr. Daniel Chao and Dr. Brett Wingeier, sells a consumer headset called the Halo Sport, which uses the electric stimulation of the motor cortex, the part of the brain that controls movement. The product is marketed to athletes looking to improve at certain exercises and musicians trying to advance their muscle memory to more quickly master an instrument.

This research is part of the larger movement of biohacking, the endeavor to make our bodies and brains run better with the help of wearable devices or biotech implants. So, would you zap your brain to boost your productivity? Should we all embrace this biohacking movement and become our own versions of the Six Million Dollar Man? It's something to keep an eye on in the future. For now, we'll stick with our espresso.

Is the Gender Pay Gap Worse Than We Thought?

A popularly cited figure on the gender pay gap says that women make 80 cents for every dollar men earn. That figure is based on comparisons of what men and women earn for a year of full-time work. Taking a longer-range view, however, reveals this pay gap is much worse. A report by the Institute for Women's Policy Research compared earnings for men and women across a 15-year period. Compared across this longer timeline, women only make 49 cents for every dollar men take home. The reason is that women are more likely to leave full-time work to raise children or care for family members.

Addressing the pay gap, then, is more than a matter of leveling salaries for men and women that do the same work. It also means embracing policies that enable women (as well as men) to work and raise a family. And as more boomer parents enter their elderly years, it will call for more policies that give working individuals the flexibility to help care for their aging parents.

Reskilling for Automation

A report by the World Economic Forum projects 1.4 million U.S. workers are at risk of losing their jobs to automation in the coming years. The report goes on

to suggest that the cost to retrain these workers to keep them relevant amidst technological change will come out to $34 billion. Covering that won't be cost efficient for businesses, which means the U.S. government would have to foot most of the bill or risk a massive wave of automation-fueled unemployment.

Some 18 percent of those workers, more than a quarter of a million people, will not be able to be reskilled for this new economy. So, what will become of these workers? Will government assistance be necessary to keep them fed, clothed and housed, or will new industries emerge to provide the next wave of employment opportunities?

ZEITGUIDANCE

1. A culture of brutal honesty that works for Netflix may not be the best approach for your company. But every business should insist on developing a consistent work culture and finding people who will thrive within it. How will you go about finding the culture that resonates with you—as well as those you employ?

2. It's time to start incorporating new standards to create and maintain a physical workspace that keeps employees healthy, happy and productive. But above all, the focus for any company should be to make it easier for workers to get their work done—and get on with their lives.

3. Even the most powerful companies in the world aren't immune to being held accountable for their decision-making by employees. Those businesses that are responsive to employee concerns will enjoy a competitive edge by ensuring their workers remain engaged and passionate about the work they are doing.

4. More companies are reconsidering the qualities they should be seeking out in their CEOs, as public scrutiny and new employee demands call for leaders with a greater composite of interpersonal skills. These new demands could be key to bringing greater diversity to the CEO office.

5. Resolving the problems posed by employer-provided healthcare may mean companies are getting even more involved in the care of workers. This will raise stickier issues around privacy, as well what the ultimate motivations for employers are (i.e. saving on premiums and keeping employees healthy enough to continue working).

TECHNOLOGY

As we sum up the impacts of digital technology on our work, our social lives, our families and our health, we're increasingly left to wonder: **Has any of this been good for us?**

Seamless communication promised to help us work faster, save us time and make it possible to work from anywhere. Now, we simply have more work, have less—if any—time away from it and our commutes have only grown longer.

The ability to instantaneously connect to anyone at any time should bring the world closer, make it easier to access the best information and keep us connected to those we care about. Now, we see a world that is as divided as ever, where false information is proliferating, and we've become more socially disconnected from one another.

The good news? We at least are now more aware of these negative impacts, and can start to take more proactive steps to address them. Increasingly, **people are focusing on their digital hygiene,** using their new familiarity with technology's impacts to live healthier lives.

And we're also getting more advances that promise to help us be healthier, but that also raise their own set of questions about the privacy of our most intimate health information.

So, what's the tech we can feel good about it? Which companies can we trust? Here's what we're seeing for the year ahead.

TECHNOLOGY

CHECKING VITALS FOR THE BIG FIVE

Increasingly, the digital lives we lead fall under the purview of a select handful of companies: **Microsoft, Apple, Google, Amazon and Facebook, or the Big Five for short.**

"Much as people are now wary or even unhappy with the outsized power held by Facebook, Google, Amazon, etc., they are simultaneously quite dependent on the services they provide," says David Autor, an economist at the Massachusetts Institute of Technology.

While there's great variance to how we might feel about each of these companies individually, taken together, this trend of greater digital hegemony is not encouraging.

On the Recode Decode podcast with Kara Swisher, author Franklin Foer lays out the danger of the concentrated power of these companies in plain terms. "They know our weaknesses, and they know the things that give us pleasure and the things that cause us anxiety and anger. They use that information in order to keep us addicted. That makes these companies the enemies of independent thought."

Which is to say, in the worst-case scenario, these companies are actively bad for us. The best case? That **the Big Five might start to correct what ails them, and by extension forge healthier relationships with consumers.**

Here's what we're seeing from the Big Five, both for the state of their businesses and their relationships with consumers.

Apple

Slowing hardware sales (notably for its flagship product, the iPhone) led to a major hit for the company's stock at the start of the year. The company cut its first-quarter revenue target from $91.5 billion to $84 billion, and its stock has lost $355 billion in value since posting rosier Q4 figures. With a saturated smartphone market in the U.S. and fierce competition from the likes of Samsung and Google, Apple has looked to Chinese consumers to fuel growth. **The company has struggled,** however, against local competitors, and has also been hurt by

China's economic slowdown.

The past few months have been great for Apple's reputation with consumers, if not its bottom line. With other tech companies embroiled in data privacy scandals, Apple took advantage of others missteps to tout its credentials on the issue. At CES, the company placed an enormous billboard facing the Las Vegas Convention Center that declared "What happens on your iPhone, stays on your iPhone." The line is a nod to the famous ad campaign for the city of Las Vegas itself, and an intended shot at the data sharing practices of competitors Amazon and Google. Tech experts were quick to point out, however, that Apple helps Google's data tracking efforts by accepting billions of dollars from Google to make its search engine the default for Safari and Siri. Apple also dealt with an embarrassing bug in its FaceTime software that made it possible to listen in on and access the camera of a FaceTime call recipient, even if they didn't accept the call.

Microsoft

While other tech giants earned more headlines, Microsoft quietly had the best 2018 of any of the Big Five. With its stock value climbing 20 percent from January to December of 2018, Microsoft was vaulted to the top spot among the most valuable companies in the world for a time. The last time the company occupied that coveted position was in 2000, right before the dot-com

bubble burst (so here's hoping Microsoft's current success does not presage a similar drop in the market).

Contributing to the company's growth was CEO Satya Nadella, who placed greater emphasis on its cloud computing business. Aided by the ability to sell these services on a subscription basis, cloud services make up a growing share of Microsoft's revenue, rather than the one-time cost its other business tools have traditionally sold for. Its gaming division was also a big winner in 2018, with revenues jumping 44 percent, helped by sales of hardware like Xbox, as well as Xbox Live subscriptions.

Facebook

Facebook took a dip out of the top five companies based on market capitalization, as its stock took repeated hits thanks to continuing scandals around data privacy as well as concerns about the growth of its business. Adding to that, Facebook's user numbers have plateaued in Europe and North America and third quarter revenues were lower than expected. The majority of Facebook's revenue growth is tied to the success of Instagram, which the company has further plans to integrate (along with WhatsApp) into a single, unified infrastructure (and, critically for Facebook, a single, unified source of consumer data).

From a public perception standpoint, 2018 was about as bad a year as one company can have for Facebook. New details emerged about the scope of Russian efforts to use the platform to meddle in the 2016 election. Those included the uncovering of a massive campaign aimed at discouraging African-American voters from turning out, leading the NAACP to call for a boycott of Facebook. And months after Mark Zuckerberg went before Congress to assure the platform would be giving users the ability to control who can access their information and how it can be used, The New York Times reported that Facebook had given major tech companies "more intrusive access to users' personal data than it has disclosed." Netflix and Spotify, for instance, had access to users' private messages.

Suffice to say, Facebook has a lot of work to do in 2019 to make gains on one important metric: trust. That will be critical to keeping users on the platform and ensuring marketers continue to work with the company.

Alphabet (Google)

While Google owes the lion's share of its business to advertising (the company's eMarketer projects took in 37.1 percent of all digital ad spending in the U.S. in 2018), it also **made major strides with its hardware business in the past year.** That includes its Home smart speakers (powered by Google Assistant), Nest cameras and thermostats, and Pixel smartphones. A projection from RBC pegs total revenue from Google's hardware business at

$8.8 billion in 2018 and total profit at $3 billion. RBC also projects those figures to grow to $19.6 and $6.1 billion, respectively, by 2021.

Which is to say that Google's physical presence in the lives of consumers is only growing, even as the company deals with its own issues around data privacy. Recall in December that Google head Sundar Pichai took his turn before Congress to clear the company's name. Many of the questions Pichai faced, however, focused on allegations the company's platform has a bias against conservative viewpoints. That largely made his appearance a wasted opportunity for Congress to reassure the public of the government's ability to check the power of the Big Five.

Amazon

After briefly topping a $1 trillion market capitalization in September of 2018, Amazon suffered a 25% stock price decline in the last quarter of the year. With the tumult squarely behind it, the company now finds itself leading all companies in market value, the first time a retailer has ever claimed the top spot.

Of course, calling Amazon simply a retailer is a bit of a misnomer. Amazon Web Services has annual revenues topping $23 billion and controls 40 percent of the public cloud market. It is also a growing media juggernaut, not just with its own expanding programming, but with the Amazon Prime Channels service that sells OTT services

from other media companies directly through Amazon. Revenues for that service jumped from $700 million in 2017 to $1.7 billion in 2018.

And it is advertising that now represents the fastest-growing part of Amazon's business, an emerging third pillar for the company alongside its e-commerce and cloud computing businesses. Ad revenue doubled for the company in 2018 to more than $5.8 billion, placing it third behind Google and Facebook in the digital ad market. Amazon's total revenue from advertising is projected to grow another $28.4 billion just in the next five years and be worth about $125 billion.

Benefitting these efforts is how seamlessly the company can connect ads to purchases, as well as Amazon's treasure trove of information on our online shopping habits. That information can tell Amazon about a person's personal preferences or what stage in life a shopper is at (like whether they're a health nut, a pet owner, a parent, etc.). Its latest marketing efforts will see the company send free samples to shoppers based on what their purchase history suggests they would like to buy.

TECHNOLOGY

TECH TO FIX OUR ILLS

With technology doing much to add to our stress, can it also offer a healthier way forward?

The theme of digital tech boosting health was front and center at this year's CES, the biggest tech and gadget shindig of the year. The show featured 511 companies exhibiting products in the digital health category.

For the sake of your digital health, we won't be listing all 511, but here are a few standouts that hint at the continued intersection of health and digital technology.

For those with high blood pressure ...

Omron Health has an FDA-cleared wrist wearable that collects and stores measurements of one's blood pressure. Wearers can then, if they choose, share this data with a doctor or integrate it with Apple Health.

For men with fertility issues ...

The YO home sperm test showed off an upgrade at CES. The at-home test provides a quality score for a user's sperm based on comparisons to data from the World Health Organization.

For women with high-risk pregnancies ...

Owlet is debuting a stomach band that monitors the heart rate and kicks of an unborn baby, as well as when the mother is having contractions. That information is then tracked and health alerts are provided via an app.

For those suffering from stress (so, everybody) ...

A watch-like wearable, the Touchpoint Basic, senses stress levels based on a user's heartbeat and provides haptic vibrations meant to reduce stress levels.

For those looking to shed a few pounds (so, again, everybody) ...

The WELT Smart Belt (excuse the name) measures waist size, activity levels and motion, sending reminders to a user's phone to exercise more. Yes, now your notifications can body shame you too.

For those who need a friend to fall asleep with ...

The Somnox Sleep Robot plays soothing sounds and pulsates to provide a calming rhythm to help you fall asleep. It's a companion to snuggle with at night, minus the risk of inadvertently catching an elbow to the face.

For those who really hate to brush their teeth ...

The Y-Brush, which looks like a mouthguard plugged into an Apple TV, brushes your teeth in ten seconds. Simply chomp down on the brush and the device will do the rest.

For those who need help remembering to take their medication ...

Pillo is a voice assistant that will dispense the correct amount of medication at the correct time and uses facial recognition to ensure the medicine is going to the right person. The device can also answer questions users have about their medication.

For those looking to max their bench press ...

The firm Halo Neuroscience, founded by Dr. Daniel Chao and Dr. Brett Wingeier, sells a consumer headset called the Halo Sport 2, which stimulates the motor cortex, the part of the brain that controls movement, with small pulses of electrical current. The product is marketed to athletes looking to improve at certain exercises and musicians looking to advance their muscle memory to master an instrument faster.

TECHNOLOGY

WELCOME TO SILICON PRAIRIE

One of the ironies of the digital revolution is that, while it has enabled many to work from anywhere, it has also led to high-paying, in-demand jobs consolidating in a few select locales, such as the Bay Area, New York and Seattle. That's meant booming economies and sky-high cost-of-living for those areas. If it were a country, California's Bay Area on its own would constitute the world's 19th largest economy, greater than that of either Switzerland or Saudi Arabia.

It's also home to the nation's most expensive real estate. The high costs of housing, particularly in the Bay Area, has forced many young Californians to move—to Austin, New Orleans, Kansas City, Pittsburgh, Philadelphia, Portland, Chicago, Denver and elsewhere—**to find lower costs of living or**

opportunities beyond the tech world. And those who stay are finding they have to live farther from job centers to find affordable housing. Americans in general increasingly live farther from where they work, with the average commute now topping 27 minutes each way. And high housing costs are tied to another troubling trend: the rise in homelessness in our most well-off cities.

Recent decisions by the country's leading tech companies are set to exacerbate these trends. Amazon, which could have effectively remade the fortunes of any number of cities with its HQ2 decision, chose to expand its footprint in the already saturated metropolises of New York City and the D.C. metro area. Google, in addition to a new San Jose campus that will hold 20,000 workers, is investing another $1 billion to expand its New York footprint where it will hire an additional 7,000 workers. Moreover, Google has plans for a massive expansion to its Los Angeles campus. Facebook, boasting a workforce that grew 45 percent to 34,000 total workers in 2018, has concentrated its growth at its Menlo Park and New York City offices, and the company will be moving into a 750,000 square foot space in San Francisco this year, as well.

This growth for major tech companies is leading to consternation from long-time residents of these cities, who fear the "San Francisco-ization" or "Seattle-ization" of their hometowns.

"San Francisco-ization and the other -izations … capture the deepening suspicion of many communities that the costs of urban prosperity outweigh the benefits," writes Emily Badger in The New York Times. "The tech jobs and the high wages aren't worth having if they come with worsening congestion, more crowded development or soaring housing costs."

So, with fierce competition already existing for workers in these markets, is there an opportunity companies may be overlooking elsewhere in the country?

A group of tech industry luminaries, including Microsoft CTO Kevin Scott, LinkedIn co-founder Allen Blue, venture capitalist Greg Sands and Ripple CEO Brad Garlinghouse, are partnering with software company Pillar Technology to train high-schoolers and provide them jobs in the town of Jefferson, Iowa—population: 4,200. The idea is to develop a new source of labor where six-figure salaries aren't a requisite starting point. Doing so will expand the tech talent pool, make it easier for companies to grow, and provide needed opportunities for populations of some of the more overlooked areas across the country.

"There's talent absolutely everywhere. And the most important thing for us as an economy, a country and society, is ... to have ladders of opportunity for people everywhere," says Sands.

TECHNOLOGY

ZEITBITES

Crypto Crackdown

Cryptocurrencies were all the rage when we launched our 2018 Q1. The price of a single Bitcoin edged close to $20,000 at the end of 2017 before prices took a serious dip. So, if you held off on investing to start the year, congratulations! You've made a wise choice! You can now get a single Bitcoin for a tick over $3,600.

2017's crypto explosion led to a bevy of new coin offerings looking to cash in on the craze, with a number earning support from celebrities and influencers online. But in several high-profile cases, celebs received payment from the companies offering these currencies to promote them online without disclosing that their support was paid for. That drew the ire of the SEC, which fined boxer Floyd Mayweather and rapper DJ Khaled $600,000 and $150,000, respectively, for posting endorsements of cryptocurrencies that did not make it clear they were paid advertisements.

That action by the SEC is intended to scare off other influencers from making similar deals. "It's even more evidence that the government, at many different levels, is concerned about the influencers' impact on the marketplace," says marketing law expert Jeff Greenbaum.

Facial Recognition

Amazon is hoping to identify us better with the help of facial recognition technology. So far it has largely marketed these capabilities to police departments and federal law enforcement agencies. This tech drew criticism after a study by researchers at the M.I.T. Media Lab revealed it had more trouble accurately identifying darker-skinned individuals, raising serious questions about bias.

As the merits of using this tech in a law enforcement setting are debated, we might also ask how long it will be until it is used on everyday consumers. Imagine: When you walk into Whole Foods, sensors could identify who you are, pull up your purchases from Amazon and then target you with ads on digital displays throughout the store.

Walls Come Tumbling Down

Despite taking a jab at its competitors' security failings at CES, Apple also announced a move that will make its own ecosystem more open and available (and possibly hackable). Apple's iTunes will now be supported in TVs from Samsung, LG, Vizio and Sony, without any additional hardware from Apple.

"The barriers that once separated products into little vertical silos appear to be crumbling. One might almost say that tech is having a 'tear down this wall' moment," writes Navneet Alang in The Week.

Another notable example is Google's Assistant, not just found on Google Home or Google Pixel, but also in refrigerators, cars and TVs made by other companies. Overall, Assistant will soon be available on over 1 billion devices worldwide. Samsung televisions tout its proprietary assistant, Bixby, along with Google Assistant and Amazon Alexa.

This change reflects the growing importance of selling services over selling hardware. Not long ago, if you wanted to access the services a company offered, you had to get their device, too. Now, companies are realizing the value of growing the pool of potential subscribers to their offerings by being in more places, and on more devices, at once.

ZEITGUIDANCE

1. With Big Tech's increasing involvement in our lives, and real questions over the government's ability to regulate them, are we past the point of no return when it comes to the protection of our privacy, security and sanity against the ambitions of these companies?

2. New innovations often promise to make us healthier and more well-off, but the negative impacts of digital technology has made many rightfully wary of its effects. Will a new crop of digital technologies geared toward improving consumer health begin to fulfill the initial promises of digital technology and turn around negative consumer sentiment?

3. Despite fierce competition amongst the largest tech companies, we're seeing increasing cooperation when it comes to making their platforms and services workable and available on competitors' devices. A win for consumers, or yet another way for the Big Five to keep us locked into their ecosystems?

4. With all the tech buzzwords out there (5G, blockchain, cryptocurrency, the Internet of Things, etc.) it can be difficult to keep track of what it all really means for you. Do you have the best, most curious team in place to help you truly understand the latest technologies and how they can propel your business even further?

CONSUMERS

We've examined the focus we will see on creating healthier workplaces and healthier relationships with the technology we use in 2019. Continuing that theme, expect plenty of businesses to try and deepen their connection to consumers this year by promising to help them reach their personal health goals.

Mergers and acquisitions among large businesses will remain necessary actions for legacy firms to take in order to keep up with the tech giants. But this continued consolidation could pose trouble for how healthy the competitive landscape—and consumer choice—will remain. Can new names from the startup landscape rise up to challenge the growing hegemony of these superfirms and Big Tech? Or will newly emerging consumer categories be quickly brought under the purview of a few select, well-known names?

CONSUMERS

THE AMAZON PANDEMIC

Odds are you have a few people in your life with unhealthy Amazon shopping habits. And who can blame them? Anything you could ever need is a click away and ready to come to your doorstep, sometimes in a matter of hours.

The variety of products on Amazon owes to the titan's e-commerce dominance that compels brands to work with the site. But **more and more, brands are starting to question this relationship and consider life without the retail giant.**

One motivating factor for this was when Amazon notified its partners of a plan to move to a new One Vendor system, which will replace what was once two separate pieces on Amazon's backend: Amazon Retail, where Amazon sold stuff directly, and Marketplace,

where brands could manage and sell their own products. The change means less control for brands in how they price their products, and some companies are no longer at all able to sell their products directly to consumers. Amazon is also limiting brands on which quantities of their products they can sell on the site to increase profitability and pushing brands to change their packaging to make their products lighter and easier to ship.

Amazon's burgeoning ad business presents another quandary for brands. With close to 47 percent of product searches originating on Amazon, advertising with Amazon is a big advantage to the brands that can pay to get their products listed first in search results. But the predicament comes with those sellers who can't pay for top billing. Why put all that work in to develop a presence on Amazon if a competitor can simply pay to leapfrog your product in the search results?

Also of concern to brands is the growing preference Amazon gives to its own private label brands on the site. **The company has made no secret of its strategy of observing what sells well and then essentially copying those products to sell under its private label**, which then takes the top spaces in search results. It's even recruiting name brands to create and sell exclusive products on Amazon through an accelerator program. In exchange for doing so, Amazon promises brands fast feedback from consumers and top billing in product searches.

Put together, these decisions by Amazon are pushing some brands to look for new platforms to partner with, which is good news for startup online retailers. In fact, U.S. internet retail startups pulled in $5 billion worth of investment from venture capitalists in 2018, a major increase from the $3.8 billion they raised in 2017. These smaller outlets often succeed by focusing on a particular retail niche, partnering with select brands to create a shopping experience for consumers more catered to their specific needs.

The success of these smaller retailers means there's still healthy competition for Amazon and more options for consumers. And that should make it easier for us to find whatever we can't live without next, whether that's our favorite brand of kombucha or a lamp to combat our winter SAD.

CONSUMERS

BIG BUSINESS GETS EVEN BIGGER

Big business is getting even bigger. Between the digital hegemony of Big Tech and the growing concentration of legacy firms owing to acquisitions in the media, retail and finance worlds, **more and more of the money consumers are spending is going to a shrinking number of businesses.**

A report by the Open Markets Institute delved into this issue by comparing market share of the largest companies in a range of industries in the early 2000s to today. From smartphones (98 percent market share) to peanut butter (92 percent), almost every industry has seen the largest firms snatch up a bigger piece of that pie.

The point further stands out when we recall M&A activity just within the past several years. In the media world, **AT&T's** deal for **Time Warner** was followed by **Disney's**

blockbuster deal for **21st Century Fox's film** and television assets and **Comcast's** acquisition of European cable TV giant **Sky**. In retail, **Walmart's** purchase of e-commerce site Jet in 2016 preceded a run of acquisitions of smaller online brands. **Amazon**, of course, bought not just **Whole Foods** in 2017, but followed that move with additional purchases in the health care (**PillPack**) and smart-home equipment (Ring) spaces. To keep up, there was a rash of other acquisitions by health care companies, with **CVS's** deal for **Aetna** and **Cigna's** purchase of **Express Scripts**. Two of the world's largest pharmaceutical and chemical companies are now becoming integrated with **Bayer's** takeover of **Monsanto**.

So, how should we feel about this? On one hand, we've not seen any real impact on prices or quality from continued consolidation. But, on the other, the trend has been pegged as a contributor to such issues as slow wage growth and a decline in entrepreneurism.

Perhaps in 2019 we'll see more government action to enforce antitrust laws as concerns continue to mount over the growing power of big business (and, in particular, Big Tech). Barring that, what might the year hold for mergers and acquisitions that contribute to this trend?

Media

2017's Disney-Fox mega deal will close this March, completing the transfer of Fox assets to Disney in time for the debut of Disney+ later in 2019. In 2018, Comcast prevented a Disney acquisition of Sky with a successful $39 billion bid. Could a long-rumored CBS-Viacom merger be 2019's megadeal? Disney is also working to spin off the local Fox sports networks it got as part of the acquisition.

In the music business, **SiriusXM** is rumored to be pursuing a deal to acquire Live Nation Entertainment. After paying $3.5 billion in the fall of 2018 for **Pandora**, this would be another part of Sirius XM's efforts to keep up with the growth of **Spotify** and **Apple Music**.

Food & Retail

Coca-Cola picked up the world's second-largest coffee chain, Costa, for $4.9 billion. The Costa acquisition expands the company's efforts with one of the world's most consumed, and increasingly popular, drinks. Currently, the global coffee market is growing at around 6 percent each year. In 2018, we also saw Coke rumored to be working with Canadian marijuana producer **Aurora Cannabis** to create CBD-infused drinks.

There is much speculation about additional acquisition efforts from Amazon to continue to expand its physical retail footprint, and with it improve the logistics for its dominant e-commerce business. Amazon has made big gambits in the past, like its Whole Foods acquisition. Might it acquire another retail giant to better position itself in its battle with Walmart?

Health Care

American pharmaceutical manufacturer **Bristol-Myers Squibb** is acquiring competitor Celgene in a $74 billion deal, one of the biggest acquisitions ever in the pharmaceutical industry. The two companies, each already a powerhouse in its own right in the world market for cancer drugs, will have combined annual drug sales of around $37 billion.

In a smaller—though certainly not insignificant—deal, British pharmaceutical company **GlaxoSmithKline** agreed to buy drug-maker **Tesaro** for $4.16 billion in December. Tesaro debuted a breakthrough drug in 2017, Zejula, for treating ovarian cancer. The deal is an effort by GlaxoSmithKline to become more competitive in the cancer drug space.

GlaxoSmithKline also agreed in December to a joint venture with Pfizer to combine the two companies' consumer health units, known for over-the-counter drugs like Advil. The combined business is projected to be valued at $42 billion and allow both companies to otherwise focus on higher-margin prescription drugs.

In December, **Merck** came to terms to buy Antelliq Group for $3.7 billion. Antelliq sells tech to veterinarians, farmers and pet owners that helps them track and monitor the health of their animals. If that acquisition figure seems large, you may be interested to learn that pet health care is a $26 billion a year business.

CONSUMERS

A BETTER YOU

With competition for consumer attention and dollars at an all-time high, brands are constantly looking to find new ways to maintain a connection with their customers. To do so, many are making use of the latest available digital innovations to offer the services and insights that help consumers get the most from the products they're buying.

Or, to borrow an old marketing adage, **companies aren't just selling products—they're selling shoppers better versions of themselves**. And today's health-conscious consumer is well primed to listen to what brands have to offer.

A few of our favorite recent examples …

At Nike's newest Manhattan store, selling isn't the top priority. The main goal is to get shoppers to download the Nike app, which they can then use to access special offers and product info, book appointments with in-store style and fitness experts, and even customize their sneakers. It also automatically signs customers up for the brand's loyalty program, NikePlus. Nike has found its "Plus" members spend three times more online than non-members. Staying on the theme of digital connectivity, Nike debuted the Adapt BB, Bluetooth-connected sneakers that automatically tighten the laces when you put them on. The next step for Nike: using data collected from your sneakers to better help you reach whatever your fitness goals may be.

In January, **Chipotle** debuted new "lifestyle bowls" that adhere to diet plans like keto, paleo or Whole30. However, these bowls can be only ordered through the **company's website or on its mobile app.** "Offering Lifestyle Bowls is a great way to connect with all consumers, but especially digital users looking for an easy way to order bowls with real ingredients that fit their wellness goals," says Peter Saleh, analyst at BTIG.

Pushed by DTC brands like **Quip, Procter & Gamble** debuted a host of CPG innovations at CES. The Oral-B Genius X is a toothbrush that analyzes a user's brushing style and offers personalized feedback, while Olay Skin Advisor studies a user's selfies to make custom skincare recommendations.

Also at CES, L'Oreal showed off a prototype of a wearable sensor for tracking the pH of one's skin, which is then used to recommend skincare products. The company is using this tech to more closely study the links between pH and skin health. You may recall in 2018 that L'Oreal also debuted a wearable sensor for tracking UV exposure.

These brand efforts to reach consumers aren't confined to the adult set. To connect with kids (and alleviate parents' concerns about dental health) Procter & Gamble toothpaste brand **Crest** created an Alexa command that will play a song for two minutes—the dentist-recommended brushing time—to encourage healthier brushing habits. Voice-enabled skills are becoming a popular way for brands to connect with this youngest set of consumers, called Generation Alpha, that's grown up learning to ask Alexa or Google Assistant for what they want before they've even learned to read.

CONSUMERS

ZEITBITES

Spicing Things Up

If your cooking has been making more use of sumac, miso and curry powder, then you're already attuned to the growing demand for once rare and exotic flavors on our tables. Consumers are becoming more conscious of what's on their plates, which often means higher standards for transparency around where their food comes from and who's creating it. It also means exciting new flavors that pack a health punch.

"There's a demand for these flavors as the world goes more global and frontiers break down," says Betsy Fox, co-founder of Snuk foods, an online retailer that curates and sells a wide selection of these ingredients.

Much like how yoga and meditation caught on as wellness trends, non-Western foods are also gaining popularity for their purported health benefits as well as amped up flavors. For example, turmeric, a rhizome, which is used both fresh and in powder form, is touted as an effective antioxidant and anti-inflammatory. **Sumac**, a deep red tart spice that's popular in Persian and Middle Eastern cooking, is packed with antioxidants. **Ghee**, a clarified butter commonly used in Indian cuisine, is rich in healthy fatty acids linked to improved digestion—not to mention that it boasts a higher smoking point than butter, making it better suited for higher-temperature cooking.

Reexamining Cannabis

2018 was a landmark year for weed legalization. California legalized its recreational use last January, as did Canada in October. Deep-red Oklahoma and the famously not permissive Utah both passed laws allowing limited use of medical marijuana. Overall, the legal cannabis industry counted around $10.4 billion in revenue in 2018.

But we're still learning about the full impacts of cannabis. In his new book Tell Your Children: The Truth About Marijuana, Mental Illness, and Violence, author Alex Berenson delves into the possible connections between increased marijuana use and corresponding increases of schizophrenia and other psychoses. He also asks if, with the U.S.'s catastrophic opioid epidemic, marijuana could serve as a gateway to more powerful illicit substances.

Writing in Rolling Stone, Amanda Chicago Lewis points out Berenson is mistaking correlation for causation. In fact, many of the experts cited by Berenson have since come out to say the author misconstrued aspects of their research. "To say that we concluded cannabis causes schizophrenia, it's just wrong, and it's meant to precipitate fear," says Ziva Cooper, a committee member on a National Academy of Sciences, Engineering and Medicine report widely cited by Berenson. "People who have schizophrenia are also known to be very heavy tobacco smokers, but we don't say that tobacco causes schizophrenia."

As questions continue to rise about the full effects of cannabis use, expect no slowdown in legalization efforts in the year ahead. New York governor Andrew Cuomo has cited legalization as a priority for his state. Attorney General nominee William Barr has said he won't take action against cannabis companies operating in weed-legal states, a reversal from his predecessor, Jeff Sessions. With further legalization will come more research and more information (as well as more mixed headlines), along with, hopefully, a more fully formed understanding of the good and the bad about pot use.

ZEITGUIDANCE

1. If you're a consumer-facing brand, it's not enough to just sell your product. You also need to capitalize on consumer needs, like their growing health-consciousness, by connecting products to digital experiences that help customers in their quest for self-actualization.

2. Big businesses will continue to grow through M&A as a competitive necessity. Will this continued corporate consolidation spell a greater threat to the ability for new businesses, and potentially healthier options for consumers, to emerge?

3. To be or not to be on Amazon? While it may seem there's no other option for your business, new ecommerce platforms, social shopping tools and direct-to-consumer brands are emerging as alternatives to the ecommerce hegemony of Amazon. Is your business ready to take that leap into a life without the behemoth?

4. Health- and flavor-conscious eaters are powering demand for once rare and exotic spices and recipes, part of the greater trend of food as medicine—yet another indication of an increasingly open and globally minded consumer. Is your business thinking beyond the tried-and-true to keep up with these new demands?

5. With cannabis legalization rolling forward, we're still left with serious questions about the industry's impacts on the public's health and wellbeing. Is cultural acceptance of pot outpacing our scientific understanding or is this acceptance necessary to enable science to start to find the answers to these questions?

GLOBE & SOCIETY

Geopolitical intrigue. Climate catastrophes. Economic warning signs. There's a lot about the state of the world that should have us concerned for our physical and financial health. And that's before saying anything of the strain the news cycle puts on our mental well-being.

It's all so overwhelming that it can be tempting to want to close ourselves off from it all. What good can it do us, after all, to be constantly worried about the state of the world?

But from our viewpoint, the only way forward is to embrace the reality we find ourselves in. That's why we try to hone in on the most critical global and societal issues for you to track, to help ground us in an honest assessment of the way things are. Once we reconcile with that, we can start to imagine the way things might be.

GLOBE & SOCIETY

CALLING A TRUCE?

In diagnosing the health of the global economy, we first start with the state of relations between the world's two largest economies: the United States and China. As of now, a temporary cease-fire has been implemented in the U.S.-China trade war. The two sides agreed not to impose additional tariffs until March 1st, 2019 to allow time for further discussions. So, is this grace period a sign of cooler heads prevailing, or a temporary salve before greater escalation?

"**2019 is the year we are going to find out whether or not this is just a trade war, the beginning of a cold war, or worse**," Shaun Rein, head of the China Market Research Group, told CBS News.

Despite new sanctions, China's trade surplus with the United States grew 17 percent in 2018 to $323 billion, the highest it has been since 2006. Imports from the U.S. to China grew by just 0.7 percent, compared to an 11.3 percent increase for Chinese exports to the United States. (Total exports for China, however, fell **4.4 percent in December** from the previous year.)

The one Chinese export to the U.S. that lagged in 2018? Cash. **Chinese foreign direct investment in the U.S. was $4.8 billion**, **down from $29 billion in 2017 and $46 billion in 2016**. One outlier to this decline, however, was investment in U.S. residential housing. The Chinese topped all other foreign buyers in units bought and dollars spent in the U.S. housing market for the sixth year in a row.

In the meantime, American investors are cautiously tracking the state of China's domestic growth. In 2018, China's economy grew a sluggish 6.6. percent—the lowest rate seen since 1990, spelling bad news for American businesses counting on the Chinese market for their own growth**.** Apple cited China's slowdown as a reason for its weaker-than-expected holiday sales numbers. And that slowdown is expected to impact every industry, from tech to coffee (China is Starbucks' second largest market after the United States) to automotive (General Motors and Ford have already cautioned investors of declining sales in China) to luxury goods.

It is forecasted that 2019 could see an even greater slowdown of China's economic growth to 6.2 percent. Those fears motivated China's central bank in January to inject $83 billion into the country's financial system and might also spur more action from Chinese leaders to engage the U.S. in serious talks to resolve the current trade dispute. And, should markets in the U.S. continue to recede as well, American leadership may find itself equally motivated to do the same.

GLOBE & SOCIETY

CLIMATE CHANGE FIXES

A healthy environment spells better things for all nations. But an unhealthy one? That spells all bad news. In the U.S., California's deadly wildfires (the deadliest in its history) underscored the threat of natural cataclysms spurred by global warming. Globally, increasing incidences of droughts, crop failures and loss of natural resources are playing a significant role in elevating conflicts. A peer-reviewed study published in the journal Global Environmental Change in January of this year found that worsening climate conditions were a significant factor in the rising numbers of people fleeing conflict in the Middle East.

There are some, though slight, reasons for hope. At the UN climate summit in Katowice, Poland, in December, 190 countries agreed to the Paris Rulebook, which provides a set of rules for countries to follow for reporting

and reviewing their progress toward emission reduction targets set by 2015's Paris Agreement. However, there's still little enforcement in place to hold countries accountable should they fail to meet those commitments.

There's also greater consensus about the urgency of taking real action. A survey of adults in the United States shows not only a great plurality of people who agree humans are responsible for global warming (60 percent), but who also view addressing the issue as personally important to them (72 percent).

We also continue to see new innovations that point to a future where we might reduce our energy needs and start to clean up the mess we're now faced with. A few of our favorite examples …

The Planetary Health Diet

With the global population expected to reach 10 billion people by 2050, how can we keep everyone fed while also reducing the environmental impacts of food production? The EAT-Lancet commission brought together 37 leading scientists to explore this question, resulting in a prescribed diet designed to meet each person's health needs in a more sustainable way. Key is cutting down meat consumption (to 14 grams a day on average)—with nuts (50 grams a day), beans, lentils and other legumes (75 grams a day) covering for most of our protein needs—and eating a lot more vegetables (300 grams a day).

The Environment's New Clothes

Students and researchers at the Fashion Institute of Technology are pioneering the use of living bacteria, algae, yeast, animal cells or fungi to make biodegradable textiles and dyes. Algae have been used, for example, to create a yarn-like fiber, and just last year, a team of students successfully grew a pair of baby-size moccasins from a liquid bacteria culture. These materials are biodegradable and, because they can grow into the exact size of a particular mold, eliminate waste in production.

Energy-Positive Buildings

Norway, where cold, dark winters mean high energy demands, is leading what's being called energy-positive architecture—a movement to design buildings that produce more energy than they use. Powerhouse Brattørkaia, an eight-story office building opening in 2019 in the city of Trondheim, makes use of recycled materials, natural light, solar panels and geothermal energy to cut its energy needs while producing excess power that goes back into the grid.

Drink Up

Increasing water scarcity is driving interest in closed-loop water systems: drink, expel, treat and then drink again. Yes, that means drinking and showering in water that was once waste. Among the cities pioneering this approach is El Paso, Texas, which developed a system of purifying waste water by using a slow process that allows treated water to percolate slowly into underground reservoirs over the course of more than a year. It might sound unappetizing, but some 89 percent of El Pasoans support the use of this recycled water.

Cleaning Up After Ourselves

A 2,000 foot long barrier was deployed in the Great Pacific Garbage Patch in September to catch and collect some of the estimated 1.8 trillion pieces of plastic that form this island of debris. That effort hit a snag in December when a portion of the device broke off, requiring it to be towed back to port in San Francisco for repairs. Eventually, however, the team at The Ocean Cleanup responsible for the device hopes to deploy 60 more of the devices to help with this effort.

Pig Power

Smithfield Foods, the world's largest pork producer, is partnering with utility company Dominion Energy on a $250 million project to capture methane emitted by pig farms to use for heating homes. The unsavory byproduct of our bacon obsession is poop lagoons, deposits of pig manure that result in tons of methane. Dominion plans to capture the gas from these deposits and convert it into fuel, which Smithfield hopes will help to cut the company's carbon footprint by 25 percent by 2025.

GLOBE & SOCIETY

HEALTHY MIND

A study of country-by-country suicide rates since 2000 suggests an encouraging sign for the state of the world. Globally, suicide rates have declined by 29 percent in the last two decades, aided by increased economic opportunity, greater individual freedom and social stability.

But a far more troubling picture for the state of mental health in the United States emerges. In that same time span, suicide rates in the U.S. increased by 33 percent. More than 47,000 Americans took their own lives in 2017, making suicide the tenth leading cause of death. 2017 also saw an all-time high in the number of gun deaths, 60 percent of which were self-inflicted. And Americans are now more likely to die from suicide or opioid overdose than from a car accident.

So why has the U.S. been so troubled on an issue on which the rest of the world has made tremendous strides?

"We're trying to reduce suicide death rates in the face of a culture that's ever more fascinated with violence, that has a bunch of opiates around left and right, where family structure isn't getting more cohesive and neither is community structure," suicide researcher Thomas Joiner told USA Today. "That's a lot to fight against."

It's a grim reality we as a country have to deal with, one that will hopefully bring more attention and funding to support possible solutions to the problem. **Chief among them is greater access to addiction and mental health treatment**. For example, Ohio expanded Medicaid in 2015 to improve access to these services for an additional 700,000 low-income people. In the time since, many areas of the state have seen major strides in reducing deaths from opioid overdoses. Dayton, Ohio, which had one of the highest overdose rates in the U.S. in 2017, cut that number by 50 percent in 2018.

That raises the stakes for future debates over access to healthcare and what it means for the country's mental health—in addition to larger questions left to address about society, technology and the way we relate to one another. How can we remove the stigma against those suffering from these issues and get to a place of compassion?

GLOBE & SOCIETY

ZEITBITES

The Next Front: 5G

We've been tracking the status of the next big upgrade to the world's cellular network, 5G. One hundred times faster than 4G, the transformative effect of 5G will enable seamless interaction between devices—the idea at the heart of the Internet of Things—with the evolution from humans commanding devices to devices communicating with one another on their own. In the U.S., AT&T, Verizon and Sprint will each offer 5G speeds in limited cities at some point in 2019. Smartphones built to handle the network should be on the way by the middle of the year.

In the meantime, China's leading telecommunications company, Huawei, has been moving ahead with building 5G-capable networks across the globe, raising security concerns among U.S. officials due to the close ties between Huawei and the Chinese government.

"Chinese company relationships with the Chinese government aren't like private sector company relationships with governments in the West," says the director of America's National Counterintelligence and Security Center, William R. Evanina. Chinese law, notes Evanina, requires these companies "to support, provide assistance and cooperate in China's national intelligence work, wherever they operate."

That means 5G networks built by Huawei could, in theory, provide the Chinese government access to every piece of information shared on—as well as control of all devices connected to—these networks. To prevent this from happening, the U.S. government is doing everything possible to dissuade countries from allowing Huawei to build their 5G networks, such as threatening to move military bases from countries that choose to partner with Huawei. The outcome of this fight is more than a national security imperative; it will also determine which country will control the underlying technology that will power the next decade of innovation.

Immigration

Long an issue of contentious debate, immigration came to the forefront of our attention to start 2019. A fight to get funding for an expanded border wall into the federal budget led to the longest government shutdown in history. It also triggered fights over the best way to address the issue of illegal immigration. Critics of the wall have been quick, for instance, to point out that an estimated two-thirds of the 11.3 million undocumented immigrants in the U.S. enter the country legally and then overstay their visas.

A number of businesses, meanwhile, have been less enthusiastic about the immigration crackdown. About 8 million undocumented peoples are in the U.S.

workforce. It's estimated that more than 50 percent of the U.S.'s farmworkers, 15 percent of those in construction and 9 percent of those in the service sector are undocumented. And the jobs taken on by these workers are often those that employers have difficulty filling with American workers. The absence of such workers could spell hardship, and even doom, for some of the businesses that depend on this labor.

"These workers are often long-tenured and skilled," Craig Regelbrugge, whose company, AmericanHort, represents the nursery industry, told The New York Times. "Each job they perform sustains two to three jobs in the surrounding economy, so even though few Americans seek this field and farm work, the jobs of many Americans and many communities are sustained by their contributions."

Overtourism

Is digital technology leading to the destruction of cultural and natural treasures?

Online "listicles" and social media shares mean once-unknown local jewels, whether burger joints or hiking trails, can instantaneously find themselves subject to "overtourism" that irrevocably changes these places for good.

Popular locales such as Lisbon, Barcelona, Venice, Amsterdam, Dubrovnik, Madrid, Kyoto and Mallorca find themselves increasingly "Disneyfied" as they transform to accommodate tourists over locals. Portugal alone saw a 168 percent increase in tourists from 2010 to 2016. "In both Lisbon and Porto the central downtown areas have become more or less only for tourists," says journalist and Lisbon resident Trish Lorenz. "Tourist-oriented restaurants, souvenir shops and big international brands have displaced local businesses."

So, where do we draw the line between sustaining a local economy dependent on our tourism dollars and overstraining its infrastructure, local businesses or natural beauty?

"Is there a way to celebrate a place without the possibility of destroying it?" food writer Kevin Alexander asks. "Or is this just what we are now—a horde with a checklist and a camera phone, intent on self-producing the destruction of anything left that feels real, one Instagram story at a time?"

#MeToo Goes Global: Fighting the Patriarchy with Ride-sharing

Women in many parts of the world are finding it safer to access public spaces and new job opportunities thanks to a growing set of female-focused ride-sharing apps. Often founded and operated by women, these services

employ only female drivers and provide rides exclusively to women.

Among these new apps: New-Delhi–based Koala Kabs, Pink Taxi in Pakistan, Shejek in Indonesia, Obon in Bangladesh and Little Cab in Kenya, Uganda and Nigeria. Their popularity, fueled by safety concerns, is leading to changes for big-name ride-share services in these countries. Dubai-based Careem has signed up more than 2,000 female drivers. GrabHitch, the largest ride-sharing service in Southeast Asia, gives passengers the option to choose either a male or female driver.

Gender-focused options are also emerging in more "Western" countries, with services like Shebah in Australia and DriveHER in Canada. In the U.S., the app Safr gives female drivers and passengers the ability to choose the gender of whom they pick up or ride with, respectively. That app has faced criticism, and is likely to face legal challenges, for violating laws that prohibit discrimination on the basis of gender.

Some critics have argued these apps may further segregate women in these countries from mainstream society. "We don't want women to live in this cocoon in the name of protection and safety," says Snehal Velkar of the Akshara Center, a Mumbai-based women's rights nonprofit.

But for now, they may help more women to get out of their homes and become more involved in public life, particularly in places where their participation has long been stymied. And by creating more employment

ZEITGUIDANCE

1. Economic disruption. Trade fights. Immigration crackdowns. More and more challenges to taking your business global are emerging in an increasingly uncertain world. But we can't let that uncertainty paralyze us. Instead, continue to think ahead and create contingency plans for potential global disruptions to protect your company in this volatile landscape.

2. While we wait to see if new technological innovations can help to navigate us away from looming planetary disaster, each one of us can do more individually to lessen our own impacts. Consider not just the car you drive or whether you're bringing your own bags to the grocery store, but also how choices like reducing your meat consumption or buying in bulk to reduce packaging can play a role.

3. Addressing the mental health crisis calls on us to not only pay more mind to our own mental wellness, but to be open about what ails us to reduce the stigma associated with mental health issues.

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Keep learning,
Brad Grossman
CEO & Founder, ZEITGUIDE

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