

ED\GE

backslash

CAN TECH REWRITE
ITS WRONGS?



LETTER FROM

In our global culture, tech transcends.

It is the alpha and omega that touches—and continues to transform—everything.

Where personal technology once was simply external hardware that helped us navigate the world, it has now become the world. We live in tech. Work in it. Play in it. Die in it. In short, tech is our operating software.

Tech's ubiquity means two things: one, it has become imperative to our advancement—personal, professional, societal. And two, it has become inescapable, providing the only path forward. Take it, or get left behind, in this great digital divide of ours.

That's why when we set out to produce this in-depth, category expansive report on one topic changing global culture—we chose the biggest and broadest bucket of them all—technology. Both because of its hold on culture, and its indisputable role in shaping our future.

Interestingly, the words “technological” and “progress” have been almost indistinguishable from one another in our minds. To “tech” is to “advance.” The notion is such: there is no one without the other.

But it's 2022, and here at Backslash, we are investigating new definitions of progress. And with that, we're revisiting old ones, interrogating them, and dreaming up a new way forward.

This zine is one such interrogation.

If all progress is forward movement toward a destination, it's time we start thinking more intentionally about that destination. A brighter way forward will only prevail if we push for it. Not just consumers. Not just businesses. Not just governments. All of us.

Here's to a new kind of advancement.

Cecelia Girr

September 2022

THE

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WE LIVE IN THE "TECHTOPIA" GENERATIONS BEFORE US ONLY DREAMED OF



There's an app to optimize any and every aspect of our lives. A whole world of expert information is just a Google search away. We can connect with loved ones or complete strangers in an instant. And not to mention, we have tech to thank for making it possible to work from anywhere.

But while tech has given us convenience, knowledge, connection, and opportunity, it increasingly seems determined to take our values and autonomy away. Avatar-to-avatar is becoming the new face-to-face. The rise of smart everything is normalizing 24/7 surveillance in homes, workplaces, and cities. And robots are being developed not only with human-like intelligence, but also with self-healing human skin. Even tasting food—something we've had no problem handling ourselves up to this point—is now being entrusted to tech.

At Backslash, we've been closely monitoring these advancements and—perhaps more importantly—the world's reaction to them. To quantify changing attitudes toward existing and emerging technologies, we surveyed 4,177 respondents across the U.S., U.K., Australia, Germany, Spain, Mexico, Japan, and South Africa. Among the survey's many findings were that the majority (52%) of people are concerned about the direction new technology is headed.¹

This zine explores our ever-complicated relationship with technology, confronting the major tensions at play today and presenting ideas for a better tomorrow. It does so through the lens of four key categories: PRIVACY, HEALTH, IDENTITY, and REALITY.



These are the areas under greatest threat from technology, and in turn, the areas where tech has the greatest opportunity to do better by us. They're also among the biggest and fastest-growing conversations, as charted below.

"Digital well-being" +635%
"Social media" and "mental health" +249%
"Screen time" and "health" +123%

"Anti-tracking" +291%
"Data privacy" +235%
"VPN" +226%

PRIVACY
+75%



HEALTH
+99%



IDENTITY
+73%



REALITY
+93%



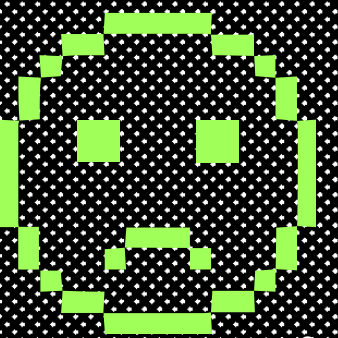
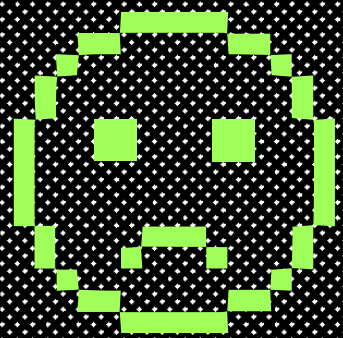
"Digital identity" +190%
"Emotion AI" +166%

"Deepfake" +46,567%
"Metaverse" +11,570%
"Disinformation" +286%

*Percentages show growth in the number of tech-related articles and blogs about each topic from January 2017 to January 2022. Data was pulled using NetBase Quid.

WITH TECHLASH MOUNTING,
BACKSLASH ASKS...

CAN TECH RETRIBUTIVE WORKS?



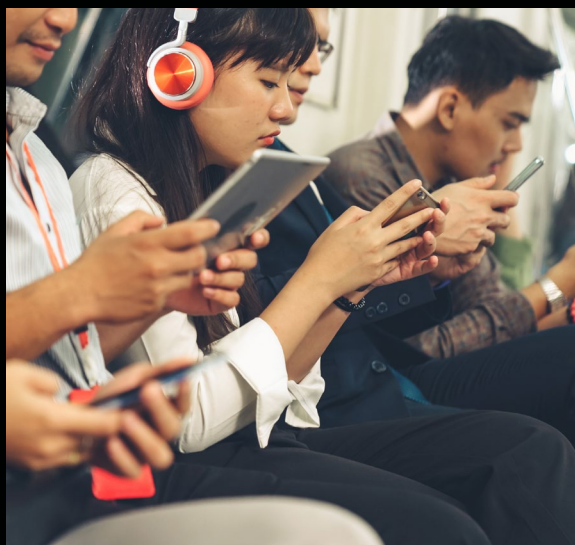


HOW TECHNOLOGY



IF DINOSAURS RULED THE EARTH 65 MILLION YEARS AGO, THEN TECHNOLOGY HAS RULED IT FOR THE PAST CENTURY. IT'S BEEN THE SUBJECT OF OUR GREATEST FEARS AND WILDEST DREAMS. A DRIVER OF HOW WE SPEAK, FORM SOCIAL GROUPS, AND DESIGN THE WORLD. A LEADING INFLUENCE IN ALL OUR LIVES. FOR MILLENNIALS AND GEN Z ESPECIALLY, THE STORY OF TECHNOLOGY IS THE STORY OF THEIR GENERATION.

TOOK OVER



CULTURE

IN TRUTH, PERSONAL TECHNOLOGY HAS BECOME SUCH A DOMINANT FORCE THAT IF YOU WERE TO ERASE IT, LITTLE WOULD BE LEFT OF TODAY'S GLOBAL CULTURE. AND THE WAY THINGS ARE GOING, IT SEEMS WE'RE ONLY VENTURING FURTHER DOWN THE RABBIT HOLE. HERE'S A LOOK AT HOW TECH HAS GONE FROM INFLUENCING CULTURE TO BECOMING IT.



1899 to 1910

ARTISTS DREAM OF THE YEAR 2000

A series of paper cards by Jean-Marc Côté and other French artists for the World Exhibition in Paris imagined how tech would transform our world in the distant year of 2000. Whimsical drawings of robot barbers, underwater croquet parties, flying postmen, and machine-run orchestras prove that tech has always been at the center of our wildest fantasies.



1930s to 1950s

DYSTOPIAN FICTION FEEDS OUR FEARS

Tech visions begin to take a darker turn with the rise of dystopian fiction. Books like Aldous Huxley's *Brave New World* (1932), George Orwell's *1984* (released in 1949), and *Fahrenheit 451* (1953) all outline chilling predictions that still remain relevant today.



1962

THE JETSONS USHER IN GOLDEN AGE FUTURISM

Though only on TV for a year, *The Jetsons* left its mark as one of the most popular symbols of 20th-century futurism. The colorful cartoon world had every tech perk you could ever dream of: jetpacks, robot maids, flying cars, houses in the sky, and perhaps most desirable of all—a three-day workweek.



1979

"VIDEO KILLED THE RADIO STAR"

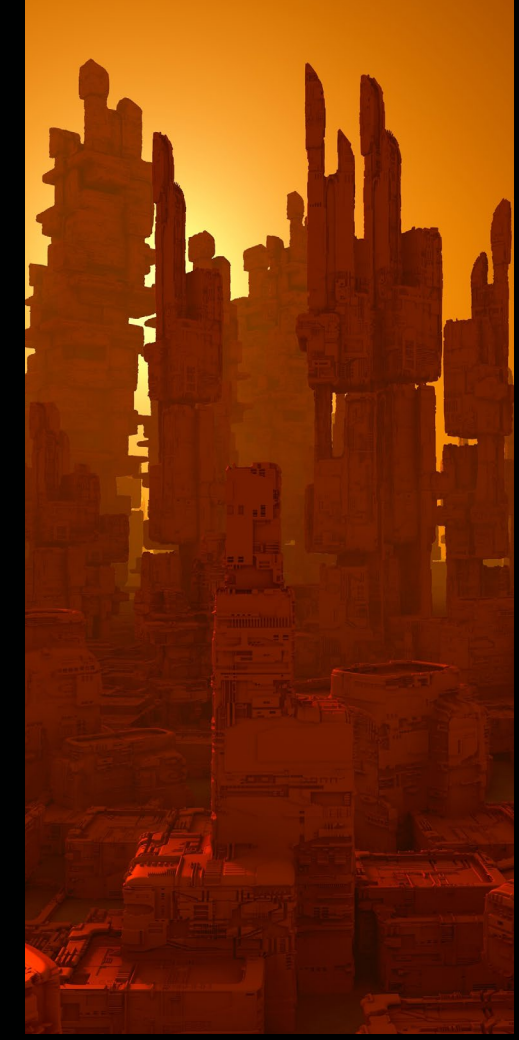
What's a pop culture tech timeline without a "Video Killed the Radio Star" reference? The lyrics literally referred to the rise of TV taking down the radio industry, and its music video was one of the first to ever play on MTV. How fitting.



1982

MAN MACHINE OF THE YEAR

Much to Steve Jobs's dismay, *Time* magazine's Man of the Year in 1982 wasn't a man at all. Instead, the personal computer was deemed Machine of the Year, perfectly reflecting society's obsession with the Information Age.



1982

BLADE RUNNER'S BLEAK LOOK INTO THE FUTURE

Ridley Scott's *Blade Runner* portrayed a 2019 world where robots threatened the human race, AI invaded our privacy, and electronic billboards were everywhere. While the tech predictions weren't far off, the film's notorious use of grim lighting, smoke, and rain was (thankfully) a bit darker than 2019 actually turned out to be.

EARLY DYSTOPIAN FEARS & UTOPIAN DREAMS



1983

**INSPECTOR GADGET
MAKES CYBORGS COOL**

"Go go gadgetmobile!" The silly cyborg detective showed us what's possible when you merge man and machine—serving as an early source of inspo for today's biohackers and exo-suit wearers.



1985 to 1990s

**HOLLYWOOD MAKES
HACKING HOT**

By the 1980s, hacking had become one of Hollywood's favorite plot lines. Prime Risk (1985) captured the thrill of hacking into ATM machines. Ferris Bueller (1986) famously hacked into his school's computer system to tweak his attendance record. And Sneakers (1992) told the action-packed story of a legal hacking team that tests security systems.



1998

THE TRUMAN SHOW

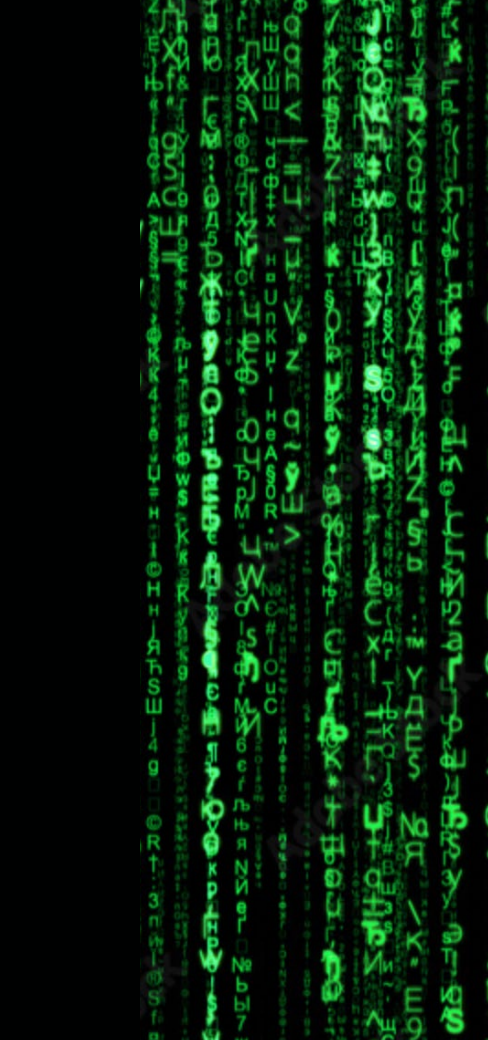
The Truman Show stars Jim Carrey, who gradually realizes that his entire life is a fabricated TV show. The movie's take on 24/7 broadcasting was ahead of its time, launching before reality TV took off, paparazzi got wildly out of hand, and blasting every detail of our lives across social media became the norm.



1998

"YOU'VE GOT MAIL"

Before emails became annoying, they were exciting. The hit rom-com starring Tom Hanks and Meg Ryan was evocative of a time when online communication felt like a new romance—somewhat mysterious, and highly anticipated.



1999

RED PILL OR BLUE PILL?

Is it better to face the painful truth? Or live in comfortable ignorance? The iconic Matrix conundrum has lived on as a famous metaphor for the idea that reality is an illusion. Twenty-three years later, the rise of the metaverse is only further fueling #simulationtheory (90M views on TikTok).



1999

**TECH RIVALRIES
BECOME BIG SCREEN
DRAMA**

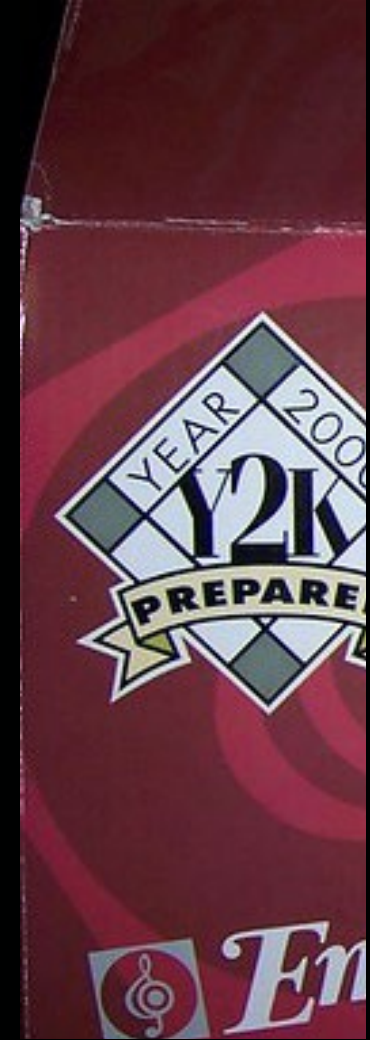
Geek history first earned its spot on the big screen with the 1999 release of Pirates of Silicon Valley. The film dramatized the rivalry between Steve Jobs and Bill Gates, feeding the growing fascination with the men behind the companies that were beginning to rule our lives.



1999

SMART HOUSE

"Smart House: When the computer at home has opinions of her own!" Leave it to Disney to perfectly capture both the enchantment and fear around living with intelligent machines for the first time. Though it had a happy ending (in typical Disney fashion), the movie left us with a clear warning to not let tech turn creepy.

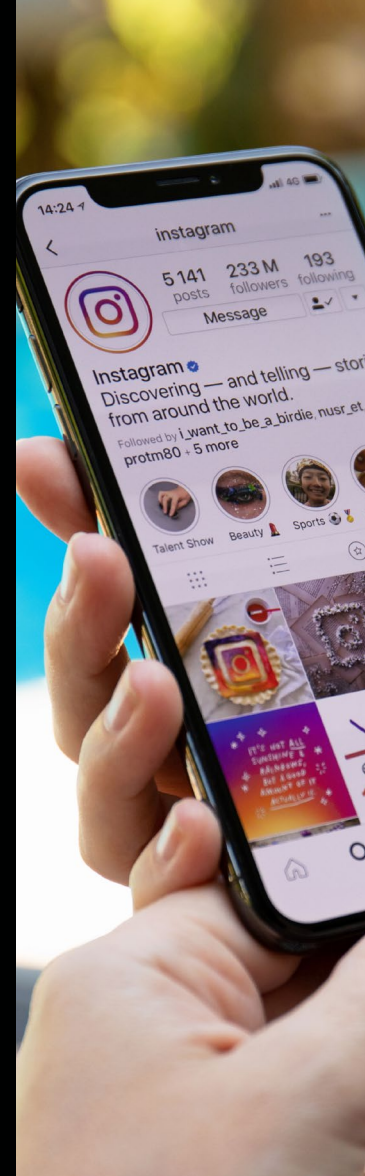
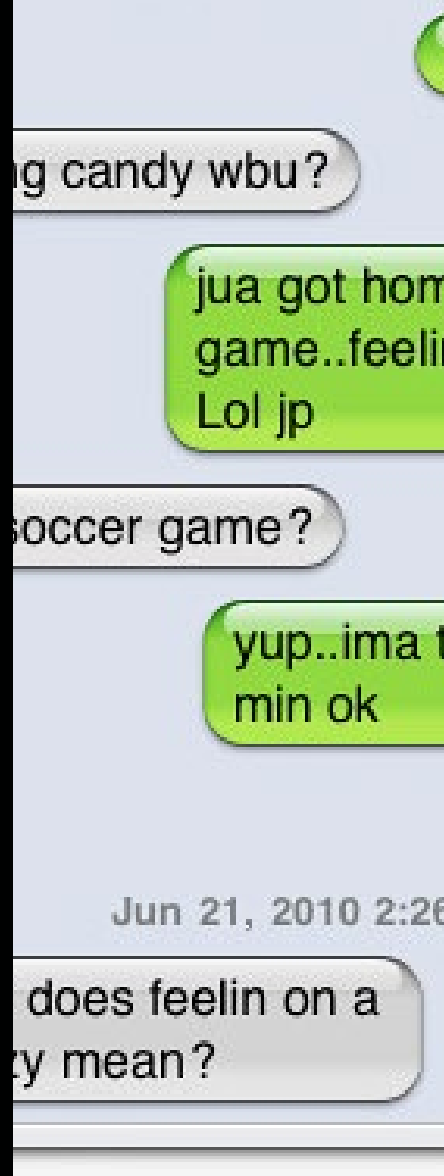
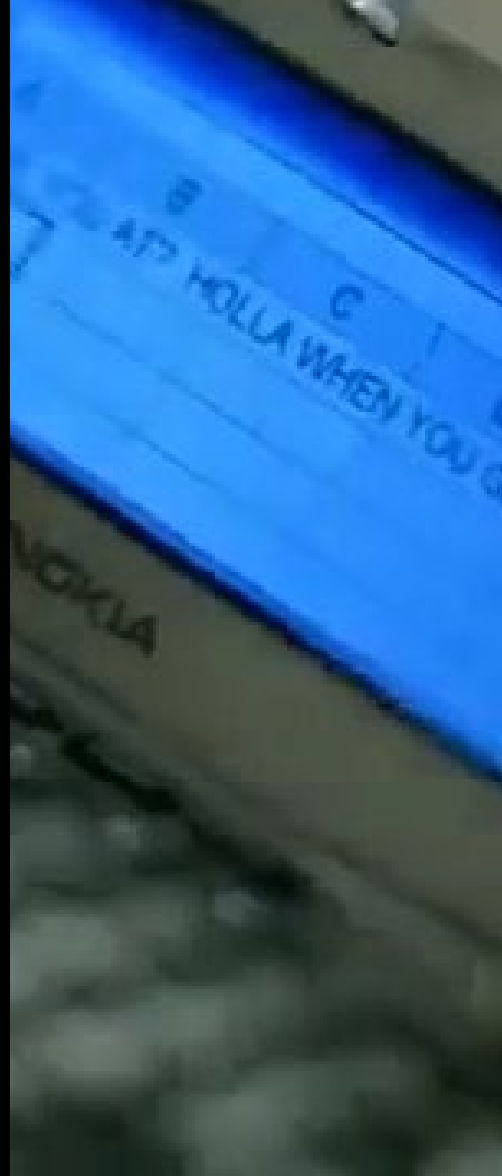


1999

Y2K HYSTERIA

Leading up to the turn of the millennium, people were convinced that computers wouldn't be able to handle the two-digit code switch from year "99" to "00," and that the Y2K bug would cause a major glitch in the system. Full-blown hysteria ensued. Y2K survival guides were flying off shelves. Y2K: The Movie and several Y2K-related songs added to the chaos. And every popular show, including The Simpsons and Family Guy, parodied the panic.

TECH'S CULTURAL CONQUEST BEGINS



2002

KELLY ROWLAND TEXTS USING...EXCEL?

Kelly Rowland was pretty much asking to be trolled online when she attempted to text Nelly using Microsoft Excel in the "Dilemma" music video. In response to the slew of memes that followed, the former Destiny's Child member said she "has no clue" what Excel is. Must be nice, Kelly.

2007

IDK, MY BFF JILL

By 2007, text slang like LOL, BRB, TTYL, OMG, and ROFL started to invade our everyday lingo both online and IRL. AT&T's famed "IDK, my BFF Jill" commercial became the ad that described an entire generation, poking fun at parents' inability to keep up with the new teen speak.

2010

THE SOCIAL NETWORK

The Social Network highlighted Facebook's origin story at a time when the platform had 500 million users and a \$25B valuation—which seemed like insanely high numbers in 2010. Twelve years later, Zuckerberg's brainchild has 2.9B monthly active users, a market cap of \$541B, and way too many lawsuits to keep track of.

2011

BLACK MIRROR

From memory implants that record everything you see and hear, to electronic devices that assign you a lifelong partner, Black Mirror explores the darkest consequences of near-future technologies. Even today, "this feels like an episode of Black Mirror" is a common (and pretty spot on) reaction to disturbing tech news.

2014

"BUT FIRST, LET ME TAKE A SELFIE"

The Chainsmokers' "#SELFIE" instantly became one of Spotify's most shared songs. More than just a catchy beat, the viral hit mocked the fact that social media was making us vain and creating a ridiculous obsession with likes and filters.

2015

FINSTAS KEEP IT REAL

In the aftermath of selfie-mania, people were desperate for something real. Enter: "finstagram." The Instagram burner accounts became a popular way for teens to share private or straight-up embarrassing photos with their inner circle—an early sign that social media was starting to feel like way too much pressure.

2015

THE WORD OF THE YEAR IS AN EMOJI 🙄

For the first time ever, Oxford Dictionaries chose an emoji as its word of the year—more specifically, the "face with tears of joy" emoji, which they said best represented "the ethos, mood, and preoccupations of 2015." After all, an emoji is worth a thousand words.

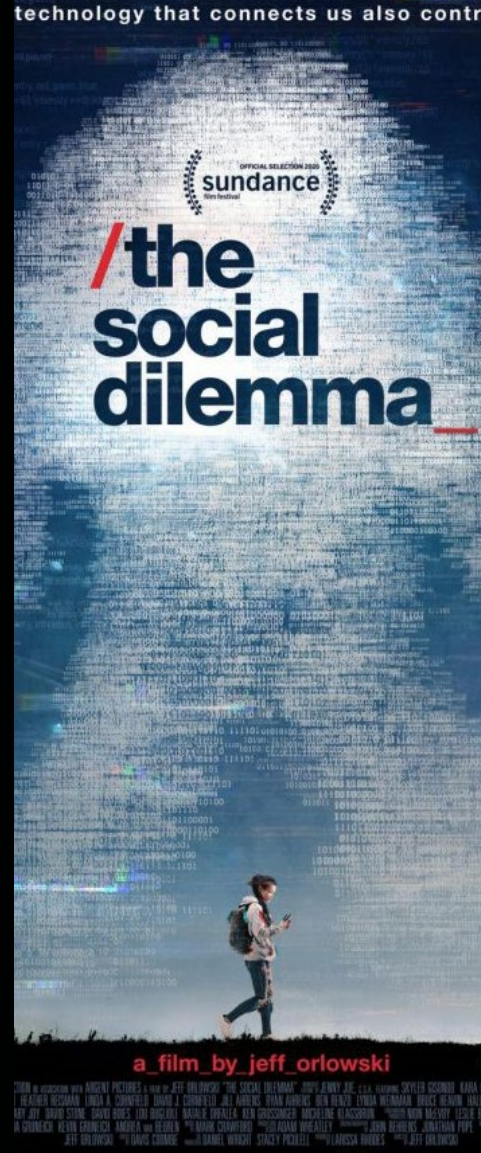
POP CULTURE CALLOUTS



2020

CYBERPUNK STYLE TAKES OVER CHINA

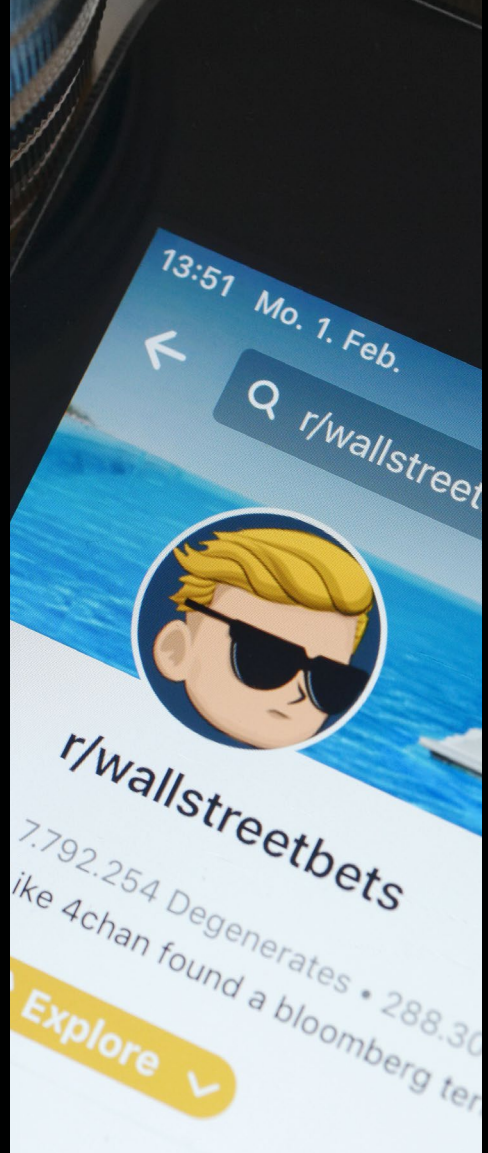
In post-COVID China, the cyberpunk aesthetic served as a much-needed escape from reality. Issues of Harper's Bazaar China and GQ Men both featured cyberpunk-inspired looks. Young people shared their take on high-tech makeup and hairstyles under the hashtag #FuturisticCyberpunkFace. And Balenciaga's Fall 2021 collection was re-released in the form of a video game.



2020

THE SOCIAL DILEMMA

If The Social Network was about how Facebook got its start, The Social Dilemma was about where things went wrong. The documentary drama broke down Big Tech's methods of manipulation, leading to an increase in searches for "how to delete Facebook."



2021

MEME STOCKS TO THE MOON

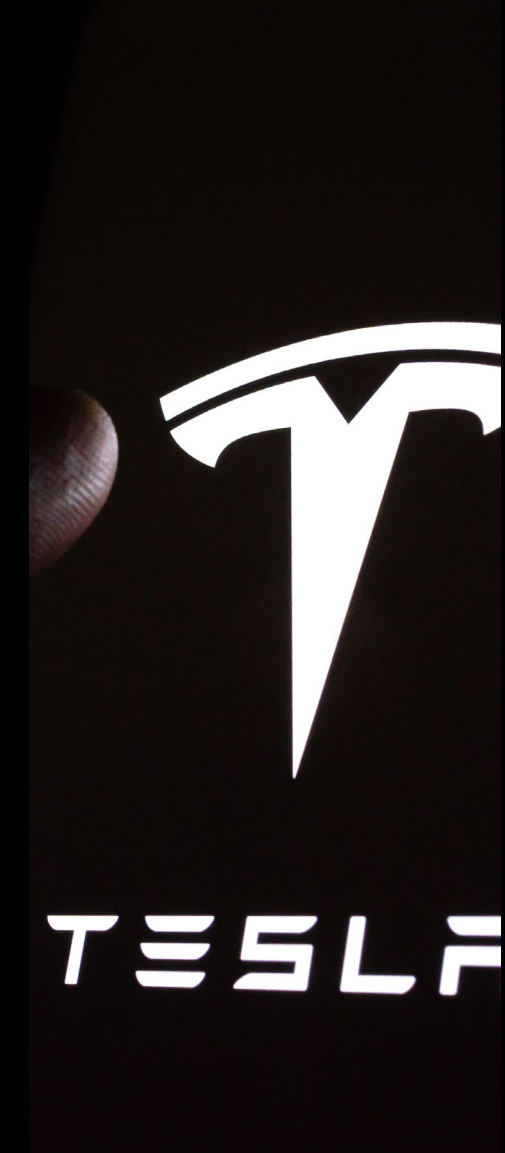
Redditors on r/wallstreetbets kicked off the meme stock movement at the start of 2021 with the notorious Game Stop fiasco. The main takeaway was that memes have more financial power than we might have ever imagined, but the wacky WallStreetBets slang was another case study of its own (stonks, anyone?!).



2021

META (BRIEFLY) STEALS KIM K'S INTERNET CROWN

It takes a lot to steal the internet's attention away from Kim Kardashian. But Meta pulled it off for a hot second in October 2021 when the Facebook rebrand was first announced, marking a rare moment in history when interest in tech exceeded Google searches about the reality TV queen herself.²



2022

CELEBRITY CEOs

When Elon Musk offered to buy Twitter in April, the internet went berserk. So berserk, that the tech mogul generated more internet buzz than both Rihanna and Britney Spears during the three months leading up to the announcement.³ That's especially impressive considering both pop stars announced their pregnancies in that same time period.

TECH BECOMES CULTURE'S MAIN CHARACTER

Skepticism has long been considered innovation's biggest opponent. We dismiss naysayers as people stuck in the past who "just don't get it." We have entire industries dedicated to converting nonbelievers into buyers. And billion-dollar tech companies have made it their mission to speed up demand so they can create more, faster. But what if we've been looking at skepticism all wrong? What if skepticism could actually strengthen innovation, not hinder it?

Tech's battle with skeptics is as old as innovation itself. The term "Luddite" originated in 1811 when textile mill workers rioted against the new machines that were replacing them. And the word "technophobia" dates all the way back to 1947. The reason is simple: as humans, we're hardwired to resist change. *The book Innovation and Its Enemies: Why People Resist New Technologies* argues that society tends to reject new technologies when they substitute, rather than augment, our humanity. In other words, we don't fear the technologies themselves, but rather, we fear their impact on our identities, hobbies, traditions, and cultural norms.

If we look back at history, these fears have been validated time and time again. Video really did kill the radio star. Social media has forever changed the definition of friendship. And FaceTime has become the new face-to-face. But history also tells us that we'll adjust and move on. So is it really worth losing sleep over these new technologies? Or should we just accept the fact that advancement is inevitable?

The truth is, technology has always been a little bit scary and the media has always been a little bit alarmist. But our current era of advancement is different. Though we've always doubted new technologies before eventually adopting them, the time between those two phases is shrinking. And while there are certainly pros to such speedy innovation, it seems society is becoming less and less impressed with the result. A global [Backlash survey](#) found that more than one in three people either strongly or somewhat agree that the negative consequences of personal technologies outweigh the benefits.¹ Calls to rein in Big Tech are also growing, with 38% of adults saying the government should [regulate](#) technology more—a 9 point increase from 2019.⁴

Clearly, the next generation isn't asking tech to create more, faster. They're asking tech to create better and more ethically. If we revisit the gadget graveyard, we can uncover times when such skepticism rerouted technology for the better. A notable example is Google Glass, the highly hyped \$1,500 smart glasses unveiled in 2012. The headset made it easy for wearers to discreetly record video, prompting some bars, restaurants, and movie theaters to ban it. Ultimately, the privacy pushback was so strong that Google shelved the product before it was able to break into the mainstream (though the term "glasshole" still lives on).

Of course, Google Glass's failure didn't mark the end of smart glasses altogether. Similar camera-enabled products like Snap Spectacles and Ray-Ban Stories are still making a go of it today. What Google Glass did do, however, is start crucial privacy conversations that slowed adoption. Ten years later, those same conversations are still going strong—forcing smart glasses manufacturers to, at the very least, openly address the risks.

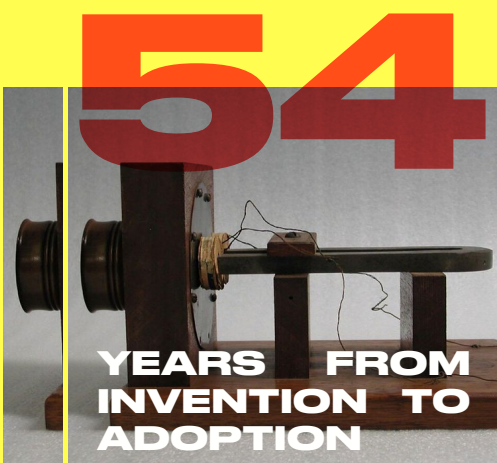
With that being said, it would be naive to think that smart glasses have no chance of taking off in the future. Over time, as the "creep factor" is addressed, we'll likely become more comfortable with the idea of wearing cameras on our face. Similarly, we can expect that many of the technologies causing concern today will eventually solidify their place in our world. Artificial intelligence will only become more intelligent. Virtual reality will, in many ways, become our new reality. And driverless cars—people's top tech fear globally according to a 2021 YouGov [study](#)—will one day become our preferred mode of transportation.⁵

So while skepticism may be a mere pit stop on the journey to the mainstream, it's a critical one. One that doesn't undermine innovation, but strengthens it. One that pushes us to weigh the consequences, put our values to the test, and gut-check what we really want out of technology. One that deserves plenty of time and input from plenty of voices.

Perhaps it's time for the "fail fast, fail often" industry to fail a little slower, and a little smarter.

THE OLD DOCK IS RUNNING ON SKEPTICISM

The following timeline* charts popular technologies on their journey from invention, to skepticism, to mass adoption—proving that while the technologies themselves have evolved, human behavior has remained consistent. In fact, at their core, many of the fears people had back then are the same anti-tech arguments circulating today—privacy violations, social isolation, machines overtaking humanity. The clear difference, however, is the number of years that separate invention and mass adoption. Innovation is only getting faster, leaving us less time to reckon with the consequences, and fewer opportunities to correct its course.



1876 ————— **1930**
TELEPHONE **ADOPTION**

**ALEXANDER GRAHAM BELL
 PATENTED THE TELEPHONE**

SKEPTICISM

Attacks on the telephone claimed that the new tech would make us lazy and antisocial, would be used to communicate with the dead, and would invade our privacy. One writer even warned that “we shall soon be nothing but transparent heaps of jelly to one another.”



1886 ————— **1929**
CARS **ADOPTION**

**KARL BENZ PATENTED THE WORLD'S
 FIRST PRACTICAL AUTOMOBILE**

SKEPTICISM

Early automobiles were called “Devil Wagons” because Sunday drives kept people from church. Princeton Dean Howard McClenahan went so far as to blame motor cars for the “steep decline in moral standards” during the Jazz Age.



1895 ————— **1931**
RADIO **ADOPTION**

**GUGLIELMO MARCONI SENT AND
 RECEIVED THE FIRST RADIO SIGNAL**

SKEPTICISM

“And now we know what we have got in radio—just another disintegrating toy. Thus dies the art of conversation. Thus rises the wonder of the century — Radio!” proclaimed Jack Woodford for Forum magazine.



1927 ————— **1955**
TV **ADOPTION**

**ELECTRONIC TELEVISION WAS FIRST
 SUCCESSFULLY DEMONSTRATED IN SAN
 FRANCISCO**

SKEPTICISM

According to media historian Ellen Wartella, critics of the television insisted it would “hurt radio, conversation, reading, and the patterns of family living, and result in the further vulgarization of American culture.”



1974 ————— **2000**
**PERSONAL
 COMPUTER** **ADOPTION**

**THE FIRST SUCCESSFUL PERSONAL
 COMPUTER, THE ALTAIR 8800, WENT ON SALE**

SKEPTICISM

The arrival of the personal computer sparked a wave of “computerphobia.” According to the 1996 book Women and Computers, sufferers experienced everything from fear of physically touching the computer, to fear that you could be replaced by a machine or become a slave to it.



1983 ————— **2000**
CELL PHONE **ADOPTION**

**THE FIRST COMMERCIALY AVAILABLE CELL
 PHONE, THE MOTOROLA DYNATAC 8000X, HIT
 THE MARKET**

SKEPTICISM

The original cell phone—dubbed a “brick phone” because of its massive size and weight—was the butt of tech jokes in the 1980s. “Who, today, will say I’m going to ditch the wires in my house and carry the phone around?” snarked telecommunications consultant Jan David Jubon.



1989 ————— **1995**
INTERNET **ADOPTION**

**SIR TIM BERNERS-LEE INVENTED
 THE WORLD WIDE WEB**

SKEPTICISM

By the 1990s, cyberspace became the new target of tech anxiety. Popular techno-thrillers like “The Net” and “Hackers” suggested that the scariest thing about the internet was how computer files could be changed to erase our existence.

*Because adoption varies from country to country, the timeline focuses on the U.S. for consistency. Dates of mass adoption are based on when the technology was owned or used by about 50% of the U.S. population, or when the media widely considered it to be mainstream.

7



YEARS FROM INVENTION TO ADOPTION

1992 TEXTING

THE WORLD'S FIRST TEXT MESSAGE WAS SENT

SKEPTICISM

Many linguists predicted that texting would be the downfall of the English language, with one professor calling it "penmanship for illiterates."

1999 ADOPTION

7



YEARS FROM INVENTION TO ADOPTION

1997 SOCIAL MEDIA

ONE OF THE FIRST TRUE SOCIAL MEDIA SITES, SIXDEGREES.COM, WAS BORN

SKEPTICISM

The onset of social media led many critics to question if we really needed more fuel for our online addictions. A 2004 New York Times article dubbed it "the Swiss Army knife of procrastination."

2004 ADOPTION

6



YEARS FROM INVENTION TO ADOPTION

2009 WEARABLES

FITBIT LAUNCHES, BECOMING THE FIRST FITNESS TRACKER TO GAIN MAINSTREAM ATTENTION

SKEPTICISM

In addition to warnings of harmful radiation, people worried that wearables would lead to an unhealthy obsession with tracking our biometrics. "Rather than gaining self-knowledge, we run the risk of becoming self-delusional... there's reason to fear that wearables will make people even more isolated," noted the World Economic Forum.

2015 ADOPTION

3



YEARS FROM INVENTION TO ADOPTION

2011 SMART VOICE ASSISTANTS

SIRI BECAME THE FIRST MODERN DIGITAL VIRTUAL ASSISTANT INSTALLED ON A SMARTPHONE

SKEPTICISM

Skynet was trending on Twitter the day Siri was announced, with several users drawing comparisons to the AI system determined to wipe out humanity in The Terminator. "Siri may be the beginning of Skynet. I swear, if my iPhone asks me if I am Sarah Connor..." read one tweet.

2014 ADOPTION

EVER WONDER HOW YOU'RE SHAPING THE FUTURE OF TECH?

As tech plays a bigger and bigger role in our world, it'll be up to us to decide exactly what we want that world to look like. And we'll face some big existential questions along the way. Ones like:

Is tech really toxic? Or is it us?

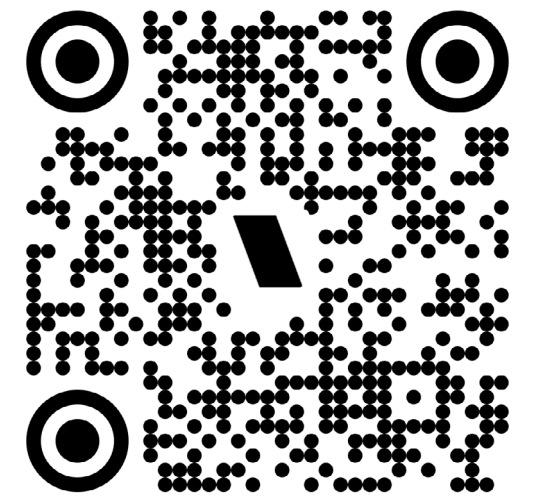
Who are we without our tech?

When everything is virtual, what's even real?



SO, LET'S FIND OUT WHERE YOU STAND.

In this simulation, you'll encounter different scenarios that start to unpack your relationship with technology. And keep in mind, the more honest you are, the more accurate your results will be.



ENTER THE SIMULATION

DATA
RUSH

DEATH
UNDONE

GAP
COLLAPSE

HELICOPTER
TECH

STEALTH
MODE

PRIVACY

IN OUR ALWAYS-SCROLLING, DEVICE-JUGGLING, PAY-WITH-PALM ERA, PROTECTING YOUR PRIVACY FEELS LIKE A LOSING BATTLE. AND IT ONLY SEEMS TO BE GETTING TRICKIER. WE'RE INVITING MORE SMART PRODUCTS—AND THEREFORE MORE SURVEILLANCE— INTO OUR HOMES. PREMIUM PRIVACY ADD-ONS ARE WIDENING THE GAP BETWEEN THOSE WHO CAN AND CAN'T AFFORD TO REMAIN ANONYMOUS. AND IF A LIFETIME OF PRIVACY PARANOIA WASN'T ENOUGH, WE NOW HAVE TO WORRY ABOUT WHAT HAPPENS TO OUR DATA WHEN WE DIE. IN THE FOLLOWING CHAPTER, WE DELVE INTO THE FRAGILE STATE OF PRIVACY AND OUTLINE HOW BUSINESSES CAN GET US BACK ON SOLID GROUND.

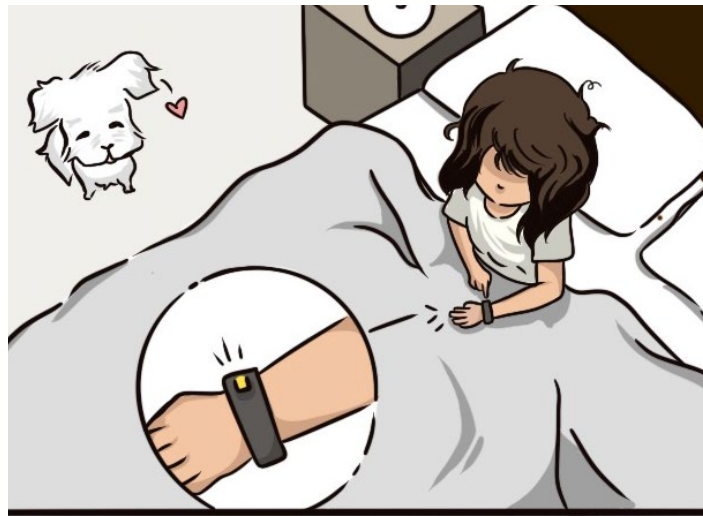
A DAY IN THE LIFE OF YOUR DATA IN THE FUTURE

Giving up our data is a cost of modern living. From smart speakers to health trackers, we've gradually become accustomed to handing over our data in exchange for personalization and convenience—fueling an industry worth \$227 billion a year.⁶ And if you think it's tough to avoid data collection now, best of luck in the future.

As the Internet of Things expands, there will be even more devices monitoring even more personal aspects of our lives. Think smart mirrors in store fitting rooms, toilets that analyze your poop, and fitness wearables for cats (yes, *really*). Of course, all this tracking will certainly bring some solid perks, but in order to enjoy those perks with any peace of mind, we'll need to have a greater say in who can access our data and what they do with it.

The following story explores how our data will be used both for and against us in the years ahead. Though Jules and the scenarios are hypothetical, the technologies mentioned are very real—whether they're patented, in development, or already available. Welcome to a not-so-distant day in the life of your data.

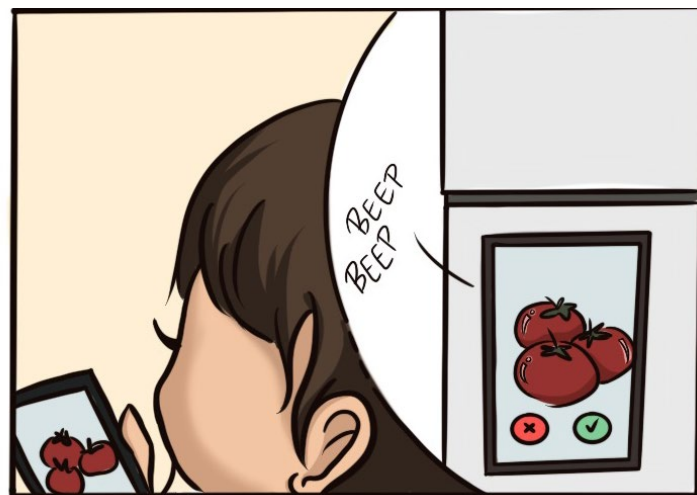
8:20 a.m. Jules wakes up to a gentle vibration from her wrist wearable. It's been tracking her breathing patterns, so it knows to wake her up at the tail end of her sleep cycle. Genius.



8:30 a.m. Feeling nice and refreshed, Jules gets up and heads to the bathroom. A few minutes after flushing her smart toilet, she gets a notification on her phone: "Your stool analysis is complete, looks like your diet is unbalanced. We recommend a mushroom and tofu stir-fry for dinner. Would you like to add the ingredients to your grocery list?"



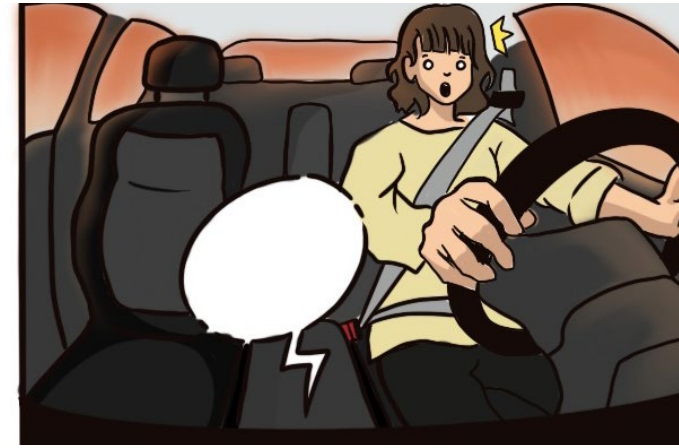
8:35 a.m. Jules presses "yes" and hears her smart refrigerator "ding" from the kitchen to let her know that the ingredients have been added. The fridge also senses that Jules is low on food and asks if she'd like to order groceries for pickup. Perfect.



10:15 a.m. After enjoying a coffee and giving her dog Diego some love, Jules hops in her EV to pick up her groceries. It's shaping up to be a productive Sunday.



10:20 a.m. Uh oh! Jules's car catches her speeding on the way to the store. Up goes her auto insurance rate.



10:45 a.m. Jules takes the scenic route home so that she can drive on the EV-charging road. While her car is being charged, the smart road is collecting data to improve traffic flow and monitor road conditions.



12:45 p.m. After she hangs up, Jules's smart speaker lets her know that she sounded irritable and suggests a mood-boosting playlist. "Blast it," Jules says.



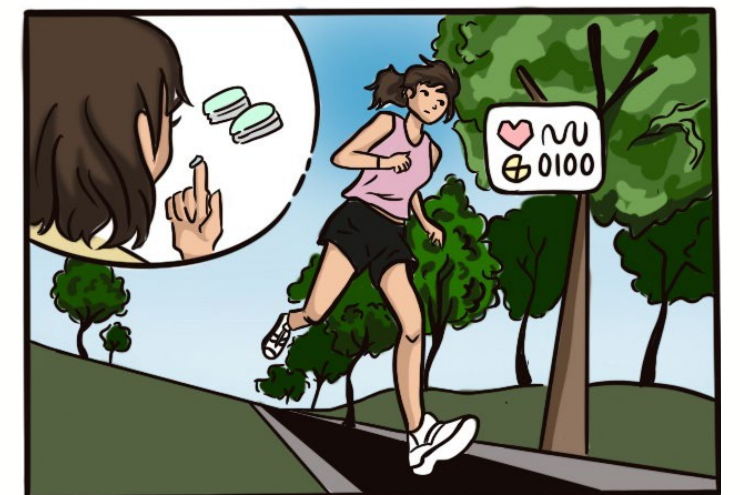
10:30 a.m. At the grocery store, Jules grabs her order and heads to the "pay with a smile" station to check out. The machine scans her face, charges the account linked to her profile, and she's all set. The cost of groceries: \$52.89. No wallet or small talk required: priceless.



12:00 p.m. Back at home, Jules FaceTimes her sister who lives across the country. They end up getting into a heated argument about the latest family drama...again.



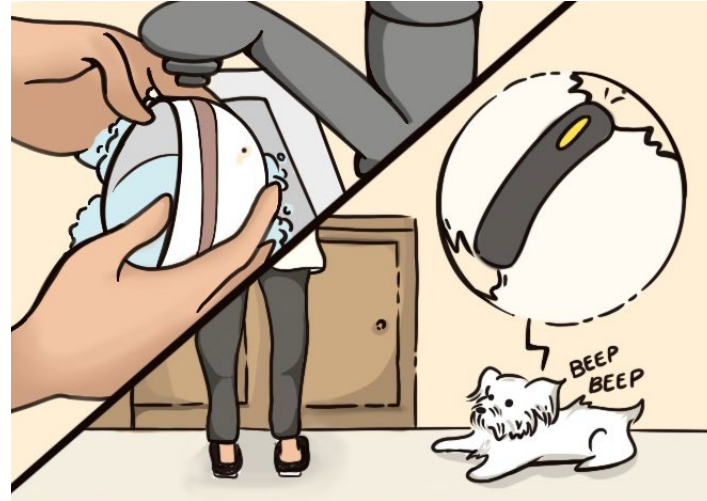
1:30 p.m. Jules decides to go for a run to blow off some steam. She pops in her smart AR contacts, which project her running route along with her pace, distance covered, and calories burned. The information is digitally overlaid right on top of what she's seeing IRL—so she can run hands-free and screen-free.



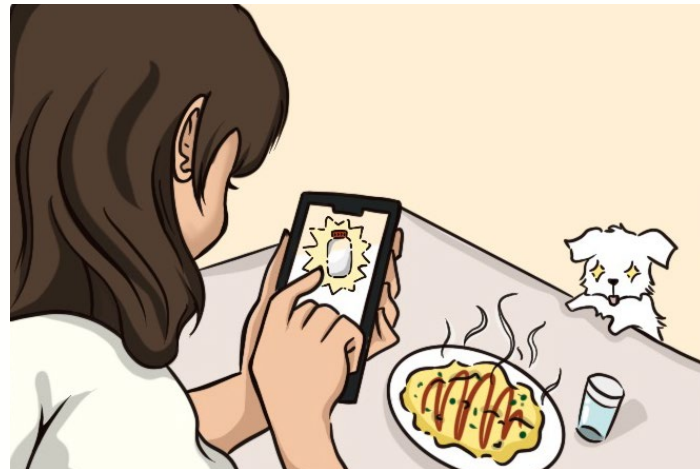
2:30 p.m. Seven miles in the books. Jules's healthcare provider sends her a push notification: "Nice work! Since you've exceeded your workout goals this week, we'd like to reward you with 30% off fitness apparel." She's in a treat-yourself kind of mood, so Jules snags a pair of running shoes she's had her eye on.



4:15 p.m. While doing some chores around the house, Jules gets an alert from her dog's smart collar. "We've detected abnormalities in Diego's heart rate. We suggest scheduling an appointment with the vet." Diego has been acting kind of weird lately, so she decides to book a check-up for next week. Better safe than sorry.



5:50 p.m. Time for dinner. Jules scrolls social media as she eats her stir-fry and is tempted by several oddly relevant ads. One for heart-healthy dog food, one for mood-enhancing gummies, and one for a new running warehouse that just opened near her apartment. She ends up buying the gummies (can't hurt to have on hand next time she talks to her sister), but turns off location tracking to stop geo-targeted ads.



8:00 p.m. Jules immerses herself in her favorite VR game to decompress before bed. While she's fighting off bad guys, the VR headset is carefully measuring her heart rate and brain activity. Jules knows that this data will be used to help game developers improve the user experience, so she's all right with it. Anything for a more entertaining game.



10:10 p.m.

Jules's wearable tells her she should start heading to bed if she wants to get an optimal night's sleep before her 8 a.m. meeting tomorrow. She hops in her smart bed, feels it to adjust to her ideal firmness and temperature, and dozes off. Another day of data well spent.



WHAT

1 The push for privacy will create a fairer data exchange. As consumers realize the value of their data, we'll see the end of unchecked data grabs and the start of a more formal data economy. Some ways this will play out include: data for discounts (like how Jules's healthcare app rewarded her for working out); tools that allow you to monetize your data (services like [Datacy](#) are already doing this, though the payout is still pretty small); and donating data for the greater good (data from smart toilets, for example, can monitor public health at scale and inform medical research). When all of our data belongs to us from the start, it'll be up to individuals to decide what level of privacy they're willing to give up, and at what cost.

WHAT IF

There was one resource to manage the flow of data between all your devices? Making it easy for people to create their own personal data map.

2 The ability to sync your data across several devices will raise new privacy concerns. When every device is a smart device, giving consumers transparency and control over how their data is shared will be key. For example, maybe you do want to connect your metabolism tracker with your smart fridge so that you can easily add recommended ingredients to your grocery list. But on the other hand, maybe you don't want to share your metabolism details with your healthcare provider out of fear that the data will be used against you. With so much data exhaust being generated, managing your personal information flow will become even trickier down the line. It'll be up to businesses to make privacy controls simple.

WHAT IF

Every app allowed you to exchange your data for cash or discounts? Turning data into a form of currency.

TO

EXPECT

PRIVACY

LUXE

Privacy has always been somewhat of a luxury. Even before data privacy was a thing, people were paying a premium to avoid prying eyes in the form of higher fences, secluded resorts, and homes with fewer neighbors. But with onlookers now behind every digital platform and device, keeping them out is becoming a nearly impossible—and increasingly expensive—task.

This fierce privacy struggle is fueling a fast-growing industry. As of July 2022, Crunchbase lists 245 privacy startups that have together raised more than \$4.1 billion.⁷ Yet despite the wide array of anti-surveillance offerings available for purchase, 43% of adults worldwide still don't feel like they can protect their own privacy.⁸ Of course, if privacy was treated as a fundamental right rather than a costly add-on, things might be different.

NEEVA

For protection from third-party trackers...

\$4.95
Per month



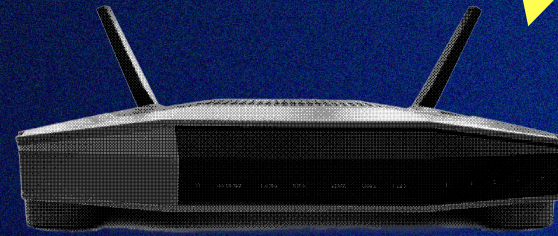
Google handles about 3.8 million searches per minute. And about 40% of those results are ads. That's a lot of trackers. As the only ad-free, private search engine, Neeva's monthly fee means that users are their primary customer—not advertisers. After all, if a product is free, then you are the product.

neeva.com

EXPRESSVPN

For protection from online spies...

\$12.95
Per month



Security experts have recommended VPNs, or virtual private networks, as the simplest way to shield your online activity from snoopers. Their top pick? ExpressVPN. Because it's based in the British Virgin Islands, ExpressVPN is not subject to international surveillance alliances' jurisdiction. It's anonymity made easy.

expressvpn.com

JEPWCO G4 PRO ANTI SPY DETECTOR

For protection from hidden cameras...

\$79.99



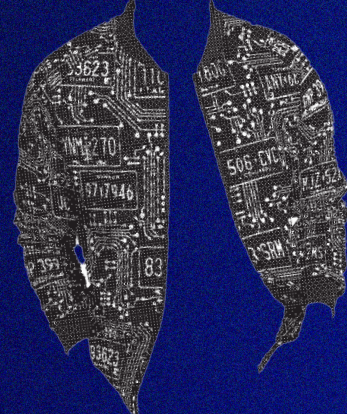
If you've ever worried about hidden cameras in your Airbnb, dressing room, or workplace, an RF signal detector can put your mind at ease. In addition to unwanted cameras, the G4 Pro can also expose eavesdropping devices, GPS locators, mobile signals, and more. Sayonara, paranoia.

amazon.com

ALPR CIRCUIT UNISEX BOMBER JACKET

For protection from facial recognition...

\$96.98



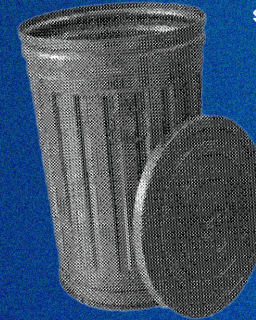
Anti-surveillance is officially in style. The Adversarial Fashion line is made from fabric specially designed to trigger Automatic License Plate Readers, injecting junk data into systems used to track civilians. The line's designer, Kate Rose, is setting out to change the culture of data collection through clothing.

adversarialfashion.com

DELETE ME

For protection from internet snoopers...

\$129
Per Year



Whether you like it or not, your personal information is all over the internet. You could reach out to every site that lists your name (i.e., whitepages.com, peoplefinder.com) and fill out tedious request forms to get it removed. Or, you could pay DeleteMe to do it for you. For \$129 a year, DeleteMe will wipe your information from search engines, give you a detailed privacy report, and check back every three months to make sure your details haven't been re-added.

joindeleteme.com

TREZOR MODEL T

For protection from crypto hackers...

\$195



Crypto hype is giving rise to growing security concerns. If you're looking for the most secure crypto hardware wallet out there, look no further than the Trezor Model T. Unlike most Bitcoin wallets that are connected to the Internet, Trezor keeps your private key out of hackers' hands. Consider the full-color touchscreen an added bonus.

shop.trezor.io

HOME IN HIDDEN HILLS, CALIFORNIA

For protection from Google Street View...

\$9,100,000



For the ultra-affluent, privacy is a lifestyle. Celebs and high-net-worth individuals are taking refuge in Hidden Hills, an exclusive California neighborhood that's—you guessed it—completely hidden from Google Street View. The gated community has gained a reputation as the premier place to "get away from it all." That is, so long as you can afford the median home price of \$9 million plus.

realtor.com

GHOST GLASSES

For protection from facial recognition...

\$164



Why stop at UV and blue light-blocking lenses? The Ghost glasses block 3D infrared facial mapping during the day and night and include a visible light reflection that makes you anonymous in photos taken using a flash. While the stylish design may attract some looks, you're sure to remain fully incognito.

reflectacles.com

FARADAY BRIEFCASE

For protection from data thieves...

\$499.95



Protecting your devices from the elements is only half the battle. Silent Pocket's military-grade Faraday briefcase will effectively block all wireless signals—keeping your information secure on your commute. Thanks to its discreet design, you'll have no problem staying under the radar while on the go.

silent-pocket.com

CLOSING THE PRIVACY DIVIDE

For the majority of us who don't have big bucks to spend on privacy, it seems we have no choice but to accept the fact that our personal information is being harvested and traded somewhere out there in the digital ether. Because let's face it, even if you can swing the \$5/month private search engine fee, it feels somewhat futile unless you also have the means to protect yourself from the countless other sources of data collection. But full anonymity can no longer be reserved for the elite. Until privacy is treated as an essential, the gap between the privacy rich and the privacy poor will only continue to grow.

HOW TO DIE DIGITALLY



The average person lives to be 73 years old. Their digital footprint, on the other hand, is *immortal*.

From Instagram profiles to NFTs, more people are beginning to consider what happens to their digital property when they're gone. Not only because we generate more data and own more intangible assets than ever before, but also because rising privacy concerns are making us think twice about who will inherit access to our online accounts. I mean, let's be honest, some things on our smartphone were never meant to outlive us.

As digital afterlife moves up the tech agenda, we'll see a greater number of secure solutions, and fewer assets forgotten (or worse, left in the wrong hands). Dying a good digital death is well on its way to becoming part of a good life.

OF PEOPLE DIE. MORE THAN 5 BILLION PEOPLE CURRENTLY ACCESS AND STORE DATA ON THEIR DIGITAL DEVICES AND IN THE CLOUD. ROUGHLY 7.5 BILLION PEOPLE WILL BE DOING THE SAME BY 2030. ¹² (PR NEWSWIRE)

THE DEAD COULD OUTNUMBER THE LIVING ON FACEBOOK BY 2070. ⁹ (LIVE SCIENCE)

IT'S ESTIMATED THAT ABOUT 20% OF ALL BITCOINS, OR \$140 BILLION IN CAPITAL, ARE "LOST" DUE TO OWNERS PASSING AWAY WITHOUT PASSING DOWN THE KEY TO THEIR DIGITAL WALLET. ¹⁰ (CHAINALYSIS)

1 IN 3 BRITS WANT EVERY TRACE OF THEIR SOCIAL MEDIA PRESENCE DELETED WHEN THEY DIE, DRIVEN BY A FEAR THAT THEIR POSTS COULD COME BACK TO HAUNT THEM. ¹¹ (WALES ONLINE)

52% OF PEOPLE STRONGLY ARE EITHER CONCERNED ABOUT WHO WILL HAVE ACCESS TO THEIR DIGITAL ASSETS AND ACCOUNTS AFTER THEIR DEATH, BUT ONLY 33% OF PEOPLE ACTUALLY HAVE DONE SOMETHING ABOUT IT. ¹ (BACKSLASH)

MORE THAN TWO-THIRDS OF ESTATE PLANNERS ARE NOW INCORPORATING DIGITAL TOOLS AND ASSETS INTO THEIR CLIENTS' PLANS. THE MOST COVERED ASSETS ARE BLOGS, SOCIAL MEDIA AND EMAIL ACCOUNTS (71%), AND PASSWORDS (67%), AND CRYPTOCURRENCIES (61%). ¹³ (PR NEWSWIRE)

TODAY'S LIVING, BREATHING (& SOMEWHAT LIMITED) OPTIONS

While some companies have made strides in digital inheritance, there's still a ways to go. Here's a look at the options that exist (or don't) today:

SOCIAL MEDIA

On **Twitter and Snapchat**, the only option is to request that the account of a deceased person be removed entirely. But you'll need a copy of their death certificate in order to do so.

As one of the newer kids on the social media block, **TikTok** doesn't yet have any formal policies in place for the death of a user. Somewhat surprising for a platform where #death has almost 11 billion views.

Facebook, Instagram, and LinkedIn all give you the option of either permanently deleting your account when you die, or appointing someone to look after your memorialized account. A memorialized account will say "Remembering" next to someone's profile, and will allow friends and family to continue to share memories in their honor. The deceased's previous posts, however, will remain unchanged.

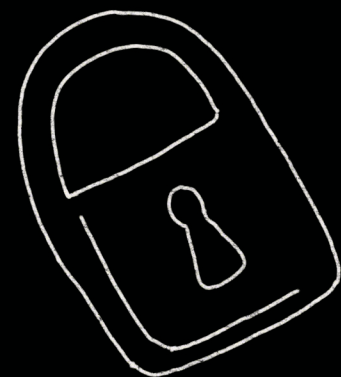


DATA, DOCUMENTS, & MORE

Apple became the latest tech giant to remind us of our mortality when it launched its Digital Legacy program at the end of last year. The feature lets iPhone users designate up to five people who will be able to access their data and personal information stored in iCloud when they die—including photos, documents, and even past purchases.

Google's Inactive Account Manager lets you list up to 10 contacts who will get access to your data after your account has been untouched for a certain amount of time. You get to decide what that time period is, as well as exactly what they get access to. For example, you can let them into your Google Drive, but keep your Google Photos forever private.

Microsoft is a bit further behind when it comes to digital death planning. You can only access someone's account if you know their password (which is unlikely, not to mention the added challenge of two-factor authentication). Otherwise, the account will be automatically closed after two years of inactivity.



PASSWORD MANAGERS

Another option is handing down your passwords through a password manager.

1Password and LastPass are two trusted programs that let you share your account logins with your family once you're gone.

CRYPTOCURRENCY

First, a note on why crypto is so tricky to pass down. Unlike traditional bank accounts, digital assets like Bitcoin and NFTs don't have a central regulatory authority. Instead, crypto investors control their own assets using digital wallets that can only be opened with a password or private key—a very random, pretty much impossible to guess 256-bit long number. The key can't be recovered, so if it's lost or forgotten, it's bye-bye Bitcoin.

Popular cryptocurrency exchanges all have their own rules for dealing with dead holders—similar to what a bank might require. **Coinbase**, for example, requires beneficiaries to provide a death certificate, will, and other legal documents through an online request form. The same goes for Binance and Gemini, though Gemini says they're working on adding an account beneficiary functionality.

There's also a number of new startups working to make crypto inheritance more secure. TrustVerse uses AI and smart contracts to store keys and passwords. Safe Haven and Casa allow crypto holders to lock their keys within several layers of other private keys, which can then be distributed across several people. And Clocr has a digital safety vault that "shreds" passwords and sends pieces of it to multiple locations.

IMAGINING A BETTER WAY TO PUT OUR DIGITAL ASSETS TO REST

It's clear that digital legacy planning has yet to peak. Besides the fact that death planning capabilities aren't guaranteed across platforms, the companies that do offer them all have different rules—making an already unpopular topic even more daunting.

As data's value rises and the crypto craze rages on, the companies that make it easy to put our digital lives to rest will earn the trust of generations to come. Sure, these features will probably never be as sexy as AI that allows our avatars to live eternally in the metaverse, but they'll always be necessary. And in a world of "why do we even need this" kind of innovations, practicality goes a long way.

WHAT IF

You could opt in to donating your medical data in the same way that you opt in to becoming an organ donor? Allowing people to contribute to valuable medical research long after they're gone.

WHAT IF


Declaring your post-death account wishes was a mandatory part of every sign-up process—from cloud storage services, to social media profiles, to crypto wallets? Ensuring that postmortem privacy was never an afterthought.

WHAT IF

Our digital remains were preserved in the same way that historical documents are? Giving future generations credible, well-organized insights into how history played out online.

WHAT IF

There was one virtual vault that stored all our online goods—hotel points, airline miles, e-books, digital clothing, avatar skins, gaming tokens, etc.—making it easy to track and pass down digital assets?



WE GENERATE DATA ALMOST AS UNCONSCIOUSLY AS WE BREATHE. EVERY CLICK, VIEW, SEARCH QUERY, VOICE COMMAND, AND PURCHASE LEAVES BEHIND A TRAIL OF DATA EXHAUST, AND THAT TRAIL JUST GETS LONGER AND TANGLER AS WE SPEND MORE TIME ON MORE DEVICES. TO MAKE ANY KIND OF ANONYMITY POSSIBLE AGAIN, NEW SOLUTIONS WILL BE NEEDED. NOT "SOLUTIONS" AS IN PRICEY EXTRAS AVAILABLE ONLY TO THOSE RICH OR SAVVY ENOUGH TO KNOW WHERE TO LOOK. SOLUTIONS THAT TREAT PRIVACY AS A FUNDAMENTAL HUMAN RIGHT.

OF COURSE, WITH ENTIRE INDUSTRIES BUILT TO GRAB AND SELL AS MUCH DATA AS POSSIBLE, CHANGE WON'T HAPPEN OVERNIGHT. BUT WE'RE BEGINNING TO SEE HOPEFUL SIGNS OF PROGRESS. PRIVACY CONTROLS ARE BECOMING MORE COMMON AND USER-FRIENDLY. TRANSPARENT STARTUPS ARE ALLOWING PEOPLE TO OWN AND PROFIT FROM THEIR DATA. AND PRIVACY PIONEERS LIKE TIM COOK AND SIR TIM BERNERS LEE ARE REWRITING DATA RULES ENTIRELY.

WHILE THIS PUSH FOR TIGHTER DATA CONTROLS OFTEN BEGINS AS A PRIVACY ISSUE, THE END GOAL IS MUCH BIGGER THAN THAT. IT'S AN OPPORTUNITY FOR ENTREPRENEURS AND LAWMAKERS TO COMPLETELY REIMAGINE HOW WE USE AND PROFIT FROM THE INTERNET. LET THE INNOVATION BEGIN.

ENTERING A PRIVACY RENEGOTIATION



Health

WHILE THERE SEEMS TO BE NO SHORTAGE OF DEVICES HELPING US TRACK AND OPTIMIZE OUR HEALTH, THE TRUTH IS THAT MOST TECHNOLOGIES—THE TECHNOLOGIES THAT MAKE UP THE BULK OF OUR SCREEN TIME—ARE ACTUALLY MAKING US UNWELL. YOU’VE PROBABLY FELT THE IMMEDIATE EFFECTS FIRSTHAND, WHETHER IT’S DIGITAL EYE STRAIN OR THE SOCIAL MEDIA BLUES. BUT WE’RE ONLY JUST BEGINNING TO GRASP THE LONGER-TERM HEALTH CONSEQUENCES OF A LIFE DOMINATED BY DEVICES. IN THIS CHAPTER, WE EXPLORE HOW TECH’S TOLL ON OUR MINDS AND BODIES IS GIVING RISE TO A NEW KIND OF WELLNESS MOVEMENT.

THE HEALTH TECH PARADOX

If you haven't read all the research about how technology is making us unwell, you've probably felt it firsthand. From poor vision, to overall exhaustion, to so much post-scrolling anxiety that you can't sleep, the evidence is clear. And it's only getting more severe. So if tech is harming our health, how are we fixing it? With more tech, of course! It seems that every tech-caused health problem is being met with an overload of tech-based solutions, keeping us forever stuck on the consumer tech hamster wheel. Which begs the question, would all these "solutions" really be necessary if we focused on the root of the issue: excessive tech use? Maybe, just maybe, it's time to put the devices down, connect face-to-face, and go outside. Our well-being could depend on it.

Mental Health

Multiple [studies](#) have found a strong link between heavy social media use and increased risk of depression, anxiety, loneliness, and even suicidal thoughts.¹⁴

Zoom Fatigue

Science has confirmed what we've already been feeling—video meetings are exhausting. Researchers at Stanford University studied [brain scans](#) and found that camera-on calls require greater cognitive processing than in-person meetings, leaving us more mentally drained.¹⁸

Attention Span

Short-form content, round-the-clock notifications, and instant access to information is killing our ability to focus. Microsoft research found that the average attention span [dropped](#) from 12 seconds to 8 seconds between 2000 and 2015, and could be as low as four seconds by 2030 if the trend continues.¹⁵

Child Development

Recent studies have [proven](#) that high screen time has a negative effect on children's development,¹⁹ with [consequences](#) ranging from lower empathy, to poor social competence, to slower language and cognitive development.²⁰ And yet, 3 out of 4 children under the age of 2 are now [exceeding](#) recommended screen time limits.²¹

Sleep Disruption

All those bright screens have a dark side. Research has shown that [using](#) blue light-emitting devices before bed—something almost all of us are guilty of—tricks your brain into thinking it's daytime, thus suppressing melatonin production and making it harder to fall and stay asleep.²⁴ No wonder 44% of adults around the world say their [sleep quality](#) has gotten worse over the past five years.²⁵

Myopia

Our eyes are struggling to adjust to a lifestyle that involves less time outside, and more time with screens close to our face. If current trends continue, about [50%](#) of the world's population will be diagnosed with myopia—or nearsightedness—by 2050.¹⁶ That would also leave up to one-fifth of the population (about 1 billion people) at a significantly increased risk of going blind.

Tech Neck

Slouching in front of our computers and looking down at our phones for hours on end is giving rise to "tech neck"—a painful condition that can cause headaches, stiffness, and over time, an irreversible hunchback.

Rising Inactivity

According to the [World Health Organization](#), about one in four adults and 81% of adolescents aren't getting enough physical activity.¹⁷ And rising tech use is a primary culprit.

Vitamin D Deficiency

It's tough to get enough of "the sunshine vitamin" when tech habits are keeping us indoors. Low vitamin D levels are becoming increasingly common worldwide, with about [40%](#) of Europeans²² and [42%](#) of Americans²³ considered vitamin D deficient.

When tech harms our health...

...it's more tech to the rescue.

Mental Health

The onslaught of mental health issues has given rise to an onslaught of high-tech headwear. One such device is the \$546 [Flow headset](#), which treats depression and anxiety by sending tiny electrical pulses into the scalp to increase the rate at which neurons fire. It also pairs with a companion app that offers on-demand behavior therapy.

Zoom Fatigue

A growing number of employers are combatting Zoom fatigue with...VR headsets. Some businesses are encouraging burnt-out workers to decompress via VR meditation sessions, while others are aiming to boost morale with after-hours metaverse meetups.

Attention Span

CogniFit is one of several apps working to improve focus through fun, interactive brain games and personalized cognitive progress reports. For \$120 to \$170 a year—more than the cost of most streaming services—you can restore your attention and memory using the very device that's stealing it.

Child Development

If screens are a no-go, try a bot! [Moxie](#) is one of several AI companions competing to be your kid's new best buddy. The \$999 robot is designed to support social, emotional, and cognitive development, using play-based learning to teach things like listening, taking turns, and problem solving.

Sleep Disruption

For those who can't simply shut down their devices at least an hour and a half before bed, there's a whole [range](#) of products promising to block out blue light. With the right glasses and screen protectors in place, you can continue to enjoy your late-night scrolling the responsible way.

Myopia

Berlin-based Dopavision is treating the myopia crisis with more tech—but in game form. Their leading product is an app called MyopiaX®. When used in combination with a VR game, MyopiaX® delivers a light stimulus that boosts dopamine levels in the retina and slows the progression of myopia. But for it to be effective, you'll need to carve out time in your busy tech schedule to play twice a day.

Tech Neck

The [CZUR Mirror](#) is a compact desk accessory that uses AI to keep your posture in check. When its cameras catch you slouching, it'll remind you to "sit up straight" and "raise your head." Or, if you prefer a nonverbal cue, it also has lasers. For about \$69, the CZUR Mirror will help you form healthier sitting habits in as little as 7 days.

Rising Inactivity

The same tech elements being blamed for sedentary lifestyles are increasingly being used to get us moving. The virtual fitness market is predicted to grow at a healthy CAGR of 30% from 2020 to 2026, with smart home gyms, online exercise classes, and gamified VR fitness keeping us connected even as we break a sweat.²⁶

Vitamin D Deficiency

Why bother going outside when you can bring the sun's benefits to you? Seattle-based start-up [Solius](#) is aiming to boost well-being with a light therapy kiosk that stimulates vitamin D production. The company—which has raised over \$10 million in funding—claims 2 to 4 minutes in its kiosk is even better than 20 minutes outside.

The latest wellness movement is all about improving your digital diet

Have you ever thought about how all that screen time is affecting your mood? AeBeZe Labs thinks you should. The startup is establishing a new basic standard of Digital Nutrition™, arming people with the knowledge and tools to create a healthier digital diet. To learn more, we sat down with AeBeZe's founder Michael Moskowitz and got his take on how digitally dosed mood meals might boost our well-being in the future.

Simply put, what is digital nutrition? Michael: We define digital nutrition as two distinct but complementary behaviors. The first is healthy consumption of digital assets, or any positive, purposeful content designed to alleviate emotional distress or maximize human potential, health, and happiness. The second is smart decision-making, aided by great transparency around the composition and behavioral consequences of specific types of digital content.

Interesting. How does AeBeZe Labs link digital content consumption to mood? Michael: In general, we can map many different types of content with at least six neurotransmitters. So, imagine you can search for content by desired mood and see what's available across Amazon, Netflix, Hulu, and YouTube. That's what one of our tools allows you to do. Or, navigate by a specific neurotransmitter. Show me all the content that's likely to trigger acetylcholine (for better focus), or oxytocin (the love hormone) or GABA (a chemical with anti-anxiety effects), or serotonin (the happy chemical).

That makes a lot of sense. What inspired the concept? Michael: Well, for those of us that grew up in the States, if you were to think about what was on a grade school classroom wall, you'd probably find a map, an American flag, maybe a picture of the president, the alphabet, the numbers 1 through 10, and windows. That's because math and writing and social studies are part of the required curriculum until grade 12. But some of these things you're just going to absorb courtesy of exposure or osmosis. What's odd is that [even as culture has evolved and technology has progressed] we've never, ever taught anyone the basics of digital literacy, digital hygiene, and digital nutrition.

Two new terms there. Can you explain the difference between digital literacy and digital hygiene? Michael: Yes. Those categories aren't the same and shouldn't be confused with one another. Digital literacy is understanding what the hell is in the things we consume. Digital hygiene is knowing when to partake in or abstain from digital exposure and experiences, which is an increasingly hard thing to do.

Given the amount of content we consume each and every day, it's baffling that these basic concepts are still novel to most of us. Michael: You know, it would have been unfathomable, bordering on comical, to imagine a calorie counter on a McDonald's package ten years ago, but you find them all throughout the world of fast food now. And just about every other aspect of commercial life in America is now labeled. Everything from medication to mattresses. The only standout is television and the internet. Sure, movies start with something like N for nudity, V for violence, AC for adult content, SO for smoking. Which only helps so much. Maybe a five-year-old shouldn't be in the room while I'm watching this show, but it doesn't tell me how I'm going to feel at the tail end of watching it. I think people deserve more. I also think that everybody assumes that we'll someday have more.

Do you think we will? What stands in the way of that happening?

Michael: The challenge is that you have a public that's clamoring for it, and you have businesses that are refusing to alter their model even by small increments. Publishers are afraid it's going to change the way they cover stories in the newsroom or conduct their business. Platforms are afraid it's going to interfere with engagement. Movie producers are afraid it's going to interfere with viewership. Nobody wants to do it. It's almost the opposite of America's fight to jettison tobacco as the primary social instrument. It took 20 years of public advocacy and nasty deaths, and all kinds of unwanted carcinogenic effects for people to adopt different lifestyle choices. The difference is that back then people wanted to smoke, but the government didn't want them to because of the burden on our public healthcare system. In this case, the public wants these content manufacturers to show us and tell us what they are doing, and they're reluctant to do it.

AeBeZe Labs has created a range of tools to help people understand and improve their digital diet—from a digital nutrition table, to a Rise app that lets you browse content by mood. What does the ideal digital diet look like? Does it vary from person to person?

Michael: I mean, there are people who eat food based on their blood type. There are people who have diets based on their level of physical activity. There are people who have foods or abstain from foods based on allergies or comorbidity issues. Someday I think digital will be the same.

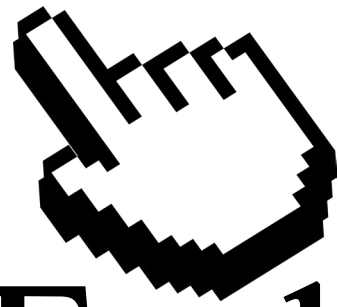
I think we'll, at the very least, have an understanding of what the internet is doing to us. But the idea that you can just abstain from all things digital, or wind it down, and that'll have a noticeable effect on the way you feel or your ability to cope with hardship? Not entirely sure. I think it depends on what you're watching, what you're listening to. And more importantly, I think it depends on "when" you're consuming these materials. So imagine if you didn't consume unhealthy content within two hours of bedtime. I egregiously violate this principle. If you're listening to white noise, great. If you're listening to some Tibetan bowl-ringing ceremony, phenomenal. But that's typically not what people are doing within two hours of bed. And so, these cycles become sort of cyclical in terms of self-harm. If you have poor sleep, for example, you might binge a piece of content, then you binge another because you had poorer sleep, and so forth. I think, again, a rudimentary understanding is key and then you can run some experiments to see how you feel and figure out what works for you.

Though digital nutrition is still far from being considered mainstream, it certainly does feel like we're approaching a real technological moment of reckoning. What do you see as the next step?

Michael: I'll leave you with this: if you stare menacingly down the candy or cereal aisle today, people have at least a rudimentary understanding of what sugar is, what carbohydrates are, and what protein is. But do they know if monounsaturated fats are better than polyunsaturated fats? Probably not. In the same vein, most people today understand what dopamine is—fault, or courtesy of, Twitter and Facebook. And eventually, I think they'll be able to intuitively make smarter digital decisions based on several of these other chemicals and a desire to maintain their personal mood, understanding that it's going to be strongly influenced by the content they consume. Things can get better. It'll just take time and a great deal of effort. It's time for a very necessary tectonic shift in behaviors, public opinion, accountability, implementation, and execution around products and services that are available to everyday people.

Welcome

(Here are three ways platforms are becoming healthier. Or, at least, trying to.)



Social media companies are the all-powerful titans of our time. They shape our interactions, influence public opinion, and dominate an increasingly large chunk of our time. And up until fairly recently, that power has gone largely unchecked. But as public cries for change get louder and threats of government regulation grow, Big Tech is racing to clean up its act.

to Tech's

Tech isn't the first industry to self-regulate when faced with pressure from lawmakers. We've seen this story play out before with tobacco, pharmaceuticals, and even pornography. This time around, the stakes are just as high—if not higher—given social media's tightening grip on personal and societal health. Tim Cook sums it up best.

“At a moment of rampant disinformation and conspiracy theories juiced by algorithms, we can no longer turn a blind eye to a theory of technology that says all engagement is good engagement—the longer the better—and all with the goal of collecting as much data as possible.”

Even as government policies do ramp up, which they will, it'll be important that these policies promote further self-regulation. Because as we've seen from the famous *“We sell ads, Senator”* moment and the equally meme-worthy *finsta misunderstanding*, legislators aren't exactly well-equipped to keep up with the complex digital landscape.

Thankfully, we're beginning to witness the seeds of change. From anti-addiction features to content crackdowns, here's how platforms are working to become healthier from the inside out.



Self Regulation Era

1

ADDING ANTI-ADDICTION SPEED BUMPS

The tech industry's obsession with frictionless design has led us down a slippery slope of auto-play and infinite newsfeeds—and we're dangerously addicted. So much so, in fact, that TikTok received more traffic than Google last year.²⁷

This rise in screen time has coincided with a sharp increase in mental health challenges among adolescents, and in some cases, things have gotten so bad that parents have resorted to sending their teens to smartphone addiction recovery clinics.

Of course, our attachment to social media is no accident. Platforms are addictive by design, motivated by business models whereby tech companies profit from our time, clicks, and attention. But the tide is turning. As the side effects of frictionless experiences are exposed, social platforms are slowing things down for the better.

The start of healthy limits

Instagram, one of people's favorite places to spend time, is addressing addiction through a number of new features. As of June, the platform now allows parents to set limits on what hours their teens can use the app. In addition to the time controls, Instagram will “nudge” users to switch it up if they've been looking at the same type of content on their Explore page for 30 minutes. Meta says the nudges were created because research suggests that they are effective in helping people “be more mindful of how they're using social media in the moment.” Lastly, Instagram will also soon expand its Take a Break feature to Reels, meaning users will be alerted when they exceed their self-imposed time limit.

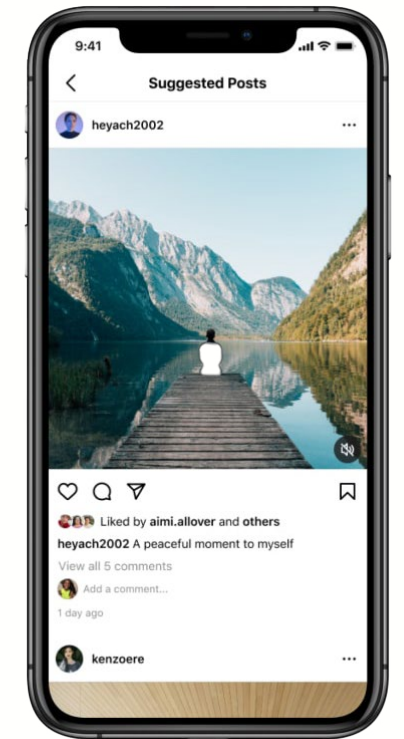
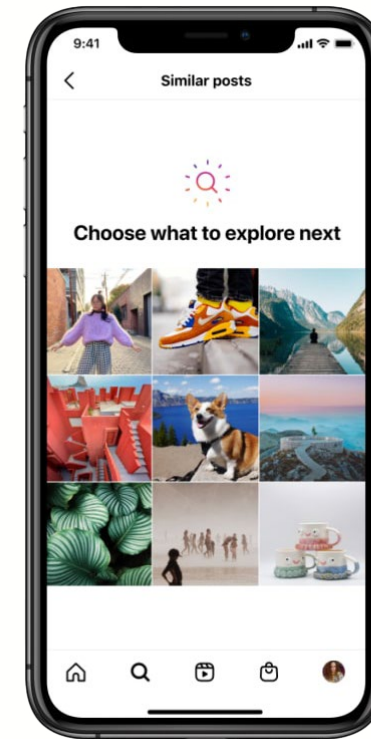
Instagram's actions are similar to those being taken on Douyin (the Chinese version of TikTok), but the key difference is that while Instagram's features are optional, Douyin's are not. One example is Douyin's unskippable five-second pauses that remind users to “put the phone down” or “go to bed” when they've been binge-watching for too long. These pauses are part of a much larger push to curb rising social media addiction in China. Just a few months before the in-feed pauses rolled out, Douyin also introduced a Youth Mode feature that limits children under 14 to spending no more than 40 minutes on the app per day.

Government regulation

If platforms don't take it upon themselves to rein in excessive screen time, governments will soon do it for them. China's three-year plan to regulate algorithms, for instance, would forbid practices that “encourage addiction or high consumption.” And over in the U.S., the proposed Social Media NUDGE Act would explore ways to add friction, such as including screen time alerts and introducing “reasonable” limits on account creation and content sharing. A similar theme is shaking out on a state level as well. In California, a bill recently passed the state Assembly that would allow parents to sue social media companies for up to \$25,000 if their children become addicted.

WHAT IF...

Social platforms were built to encourage a limited number of purposeful, high-effort interactions? Prompting people to close the app once their daily “goals” were met.



CRACKING DOWN ON HARMFUL CONTENT

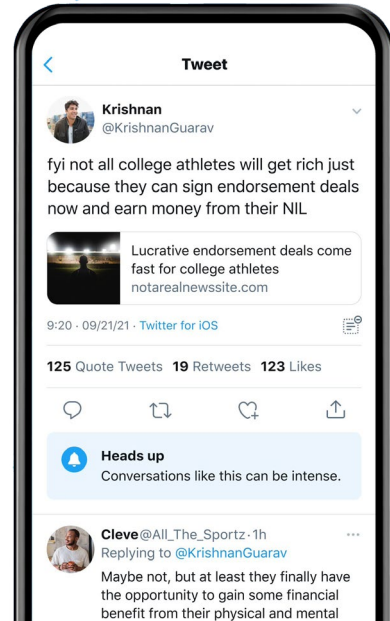
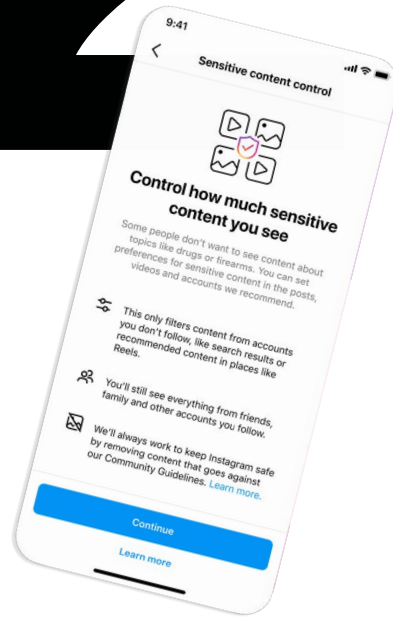
If you've spent more than five minutes on social media, you know that it's not all sunshine and rainbows. From hateful private DMs to very public takedowns, rampant online abuse is forcing platforms to step up their moderation efforts—fast.

One major effort to combat hate speech came at the start of last year when Bumble banned fatphobic, ableist, racist, transphobic, and homophobic messages. Instagram followed suit just a few weeks later, announcing that it would disable the accounts of harassers and would work with UK law enforcement to provide information on hate speech. Instagram has also introduced a tool that lets users (especially public figures who are most prone to online hate) automatically filter out abusive DMs.

Twitter, fittingly, is taking some of the biggest swings in this area. To foster healthier conversation, the social network now prompts people to review and revise “potentially harmful or offensive” replies before tweeting—a nudge they say is successful 34% of the time.²⁸ Twitter is also testing a pop-up that warns people when they're about to enter an “intense” conversation. If they try to reply to one of those heated threads, another pop-up will encourage them to “look out for each other” and remind them that “diverse perspectives have value.” As for what's next, Twitter recently expanded access to its Safety Mode beta—a feature that temporarily auto-blocks harassers.

Mixed feelings about moderation

It's worth noting that moderation is a highly contentious issue. On one hand, even those in favor of moderation say platforms still aren't doing enough. On the other hand, those against moderation say it's a violation of free speech, with many believing it should be up to the individual to self-moderate their own feed. According to the *Cato 2021 Speech and Social Media National Survey*, 75% of Americans don't trust social media to make fair content moderation decisions, and nearly two-thirds want more control over the posts they see.²⁹ Instagram has responded to such skepticism by rolling out Sensitive Content Control. The optional filter allows people to limit posts that don't necessarily break Instagram's rules, but that could be considered upsetting—such as violence, guns, weight loss ads, nearly nude photos, and so on.



Government regulation

Though public opinion is mixed, lawmakers' stance is more straightforward. The EU's landmark Digital Services Act is just one example of how seriously governments are taking moderation. Among other things, the DSA will require Big Tech firms to quickly take down illegal and harmful content such as hate speech. Failure to comply will result in fines of up to 6% of companies' global annual revenues, which means behemoths like Meta could be paying as much as \$7 billion.

Meanwhile, similar if not bigger problems are already arising in the metaverse—where harassment, assault, bullying and hate speech is rampant. If lawmakers focus only on moderating social platforms now and wait to address abuse in virtual worlds later, these harms will only become more disturbing and more difficult to manage.

WHAT IF...

Content moderators became essential stewards of public health? Elevating their job status and empowering them to shape policy.

EMBRACING TRANSPARENCY

Social platforms have always had an air of mystery about them. Why do algorithms seem to know more about us than we know about them? How secure is our data? What does it actually take to get content taken down? More and more, however, as whistleblower documents and high-profile tech lawsuits make their way into public discourse, it seems the black box is finally being pried open.

Of course, tech transparency is by no means a novel concept. We've been begging to be in the know for years, and Twitter appeased us with one of the industry's first transparency reports way back in 2012. What is new, however, is the degree of urgency. As Stanford law professor Nathaniel Persily recently testified before the Senate, “These large platforms have lost their right to secrecy. Their power over the information ecosystem is unrivaled in world history.”



Owning up to their mistakes

These calls for transparency have not been lost on tech giants. One-off transparency reports have evolved into full-blown Transparency Centers, and companies are finally starting to own up to their wrongdoings. Even Meta, whose early transparency reports were criticized for barely scratching the surface, appears to be getting more honest. The company's Community Standards Enforcement Report for Q1 of 2022, for example, promises they will do a better job of sharing their content moderation missteps going forward: “We believe sharing metrics around both prevalence [of violating content] and mistakes will provide a more complete picture of our overall enforcement system and help us improve, so we are committed to providing this in the future.”

Twitter is also admitting the areas where it could use some help—something they did ever so humbly with the announcement of the industry's first algorithmic bias bounty challenge in August of last year. The challenge called on ethical hackers to identify biases in Twitter's image-cropping algorithm, which users had previously called out for being racist and sexist. The winning team was awarded \$3,500 for demonstrating that the model tends to reinforce stereotypical beauty standards, and the learnings were openly published for others to learn from.

Leaning on advisory groups

Platforms are also embracing transparency via advisory groups—-independent experts that review their toughest ethical decisions. But while one might assume that these groups are being given extra responsibility in times of mounting tech-lax, that doesn't necessarily seem to be the case. Twitter's Trust and Safety Council and Meta's Oversight Board have both publicly criticized the companies for withholding important information, leaving many to dismiss the groups as a PR play. For Meta, the highest-profile conflict yet came this May when the company withdrew a request for the board to weigh in on content moderation issues related to the war in Ukraine. This was the first time Meta took back a request, which many people were quick to interpret as a sign of the board's diminishing power.

The board's most common recommendation to Meta? Be as transparent as possible. Their annual 2021 report urged the company to “Make your rules easily accessible in your users' languages; tell people as clearly as possible how you make and enforce your decisions; and, where people break your rules, tell them exactly what they've done wrong.”

As the stakes get even higher, the world will be monitoring the relationship between mass platforms and their advisory groups extra closely. If companies leave these groups in the dark, they'll just prove the critics right. But if they empower them to make the tough decisions, and openly communicate the rationale behind those decisions, they'll take a small but important step toward rebuilding trust. Keep your friends close and your critics closer.

Government regulation

While platforms are finally starting to give us a peek behind the curtain, they'll soon have no other choice. At the end of last year, a bipartisan group of U.S. senators unveiled a measure called the *Platform Accountability and Transparency Act*, which would require social media companies to provide outside researchers with access to their data.

A similar sentiment is being echoed over in Europe, where the previously mentioned Digital Services Act will soon force tech companies to explain their algorithms to users and researchers. And although the laws only apply to EU citizens, it's very possible that Big Tech will take the DSA as the new global standard.

But no country is mandating transparency more than China. In August, 30 of China's internet giants—including Tenecent and ByteDance—shared details of their algorithms with regulators, making China the first country in the world to publish an index of private company algorithms. “I'm not aware of any other country in the world where you can go see a list of all of the pieces of code that are essentially informing the decisions that you make, the purchasing decisions that you make, the content viewing decisions that you make,” said Kendra Schaefer, head of tech policy research at Trivium China.

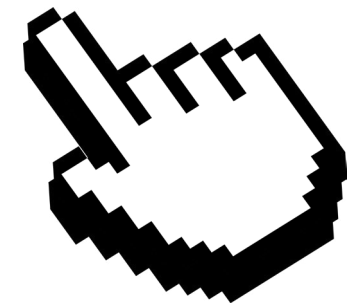
WHAT IF...

Platforms shared the inner workings of their algorithms and allowed users to give real-time feedback? Making algorithm reviews as common as restaurant reviews.





The number of strategies being tested and debates being had makes it clear just how deeply rooted these issues are. As with most things social media, the solutions aren't obvious and the path to progress isn't a straight one. But accepting responsibility is the first step. It seems platforms are finally learning that self-regulation is not only good for our collective health—it's essential to their business.



DEFINING

TECHNOLOGICAL

Wellness

THOUGHTLESS, LIMITLESS TECH USE IS ON ITS WAY OUT. LOOKING AHEAD, WE FORESEE A FUTURE WHERE WE TREAT OUR TECH INTAKE MORE LIKE OUR FOOD INTAKE—TAKING GREATER CARE TO UNDERSTAND HOW IT AFFECTS OUR MIND, BODY, AND OVERALL WELL-BEING. THINK EDUCATIONAL PROGRAMS THAT TEACH KIDS HOW TO DEVELOP A BALANCED DIGITAL DIET, ANTI-ADDICTION FEATURES BAKED INTO EVERY PLATFORM, UNIVERSAL HEALTH RATINGS FOR APPS AND CONTENT, AND CLOSER COLLABORATIONS BETWEEN HEALTH EXPERTS AND BIG TECH DECISION-MAKERS.

RATHER THAN EXPERIMENTING WITH NEW WAYS TO KEEP US HOOKED, THESE ARE THE TYPES OF STRATEGIES THAT TECH COMPANIES SHOULD BE EXPLORING IN THE PUSH TOWARD A HEALTHIER FUTURE. A FUTURE WHERE TECHNOLOGICAL WELLNESS IS PRIORITIZED RIGHT ALONGSIDE NUTRITION, EXERCISE, AND MINDFULNESS—WHERE IT BELONGS.

IDENTITY



COUNTER
CANCEL

INCLUSIVE
BY DESIGN

MOOD
GEISTING

UNGLOSSED

WEALTH
HACKING

FROM WELL-CURATED PROFILES TO WACKY AVATARS, THE DIGITAL WORLD ALLOWS YOU THE FREEDOM TO BE ANYONE YOU WANT TO BE. BUT WHILE THESE OUTLETS CERTAINLY ALLOW FOR NEW FORMS OF SELF-EXPRESSION, THEY ALSO BRING NEW SETS OF PRESSURES. OUR OBSESSION WITH SOCIAL MEDIA IS WARPING OUR INDIVIDUALITY INTO A BRAND. WEB3 STATUS SYMBOLS ARE REDEFINING WHO'S PART OF THE INTERNET IN-CROWD. AND NOW OUR EMOTIONS, THE PUREST AND MOST PERSONAL THING WE HAVE, ARE ALSO BEING EXPLOITED BY BRANDS. IN THIS CHAPTER, WE INVESTIGATE THE GOOD AND BAD OF TECHNOLOGY'S GROWING IMPACT ON OUR IDENTITY.

ME, MYSELF,

Chances are you've given quite a bit of thought to your social media profile picture. And your username. And your bio. And your follower-to-following ratio. And, let's be honest, everything you've ever posted.

What started as a way to connect with people we know has morphed into a full-blown, 24/7, multi-platform performance for a massive online audience. An all-consuming job and pressure to "be." Be authentic. Be right. Be different.

AND

It's reached the point where social media is no longer just a "reflection" of who we are and how we live. It's an actual "driver" of who we are and how we live. We cater our lifestyle choices to be social media-friendly, form our world view through content consumed on a small screen, and rely on algorithms to help us figure out what we're into and which groups we belong to. And we're exhausted. Sixty-four percent of people—including a majority of Gen Z—say life was better before social media, suggesting that the online charade has become all too much to handle.³⁰

SOCIAL

Here, we explore three major ways social media is causing an identity crisis, and look to the alternative platforms rewriting the wrongs of social media's past. These emerging apps are bringing back the benefits that social networks once gave us—self-expression, exposure to new ideas, human connection—without the toxic side effects. Perhaps social media's best years are actually ahead of us.

MEDIA

1 ADDRESSING THE AUTHENTICITY DILEMMA

Crafting the perfect online identity comes with a whole lot of pressure. Even for those of us who aren't profiting from our posts, the nature of "influencing" has become so prevalent that we can't help but treat our own profiles as self-advertisements—a careful collection of on-brand posts that represent how we want to be perceived by the world. And with more platforms, there's even more versions of yourself to prove. Live your most exciting, aesthetically pleasing life on Instagram. Be your realest, most unfiltered self on TikTok. Share your wittiest, most informed thoughts on Twitter. And on LinkedIn—be the smartest, most driven, buttoned-up you. But whatever you do, don't make it look like you're trying too hard. After all, that'd be "fake," and no one likes that.

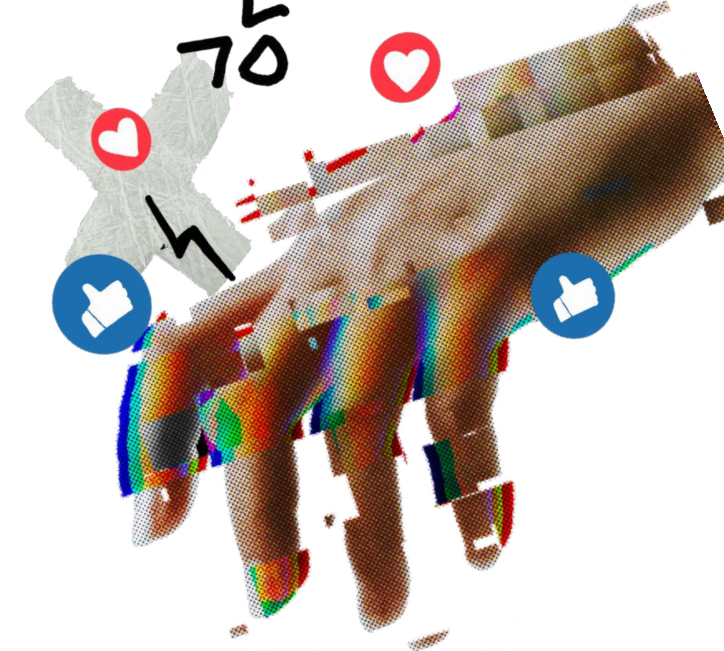
Such forced displays of "authenticity" have nearly made the word itself meaningless. But culture is clearly pushing back against social media theater. It's why people are giving up and going goblin mode, why random photo dumps are making a resurgence on Instagram, and why an everyday dude like Khaby Lame now has more TikTok followers than Charli D'Amelio.

Meet the platforms making social media casual again:

Dispo is encouraging the Instagram-obsessed generation to "live in the moment." The photo-sharing app lets people take retro-style photos that they can't see until 9 a.m. the next morning—taking us back to the age of the disposable camera. Dispo is also free of filters, has built-in privacy, and doesn't reveal follower counts. The throwback app has proven to be a modern hit, surpassing 5 million global downloads and over 100 million photos taken.

If curating the best photos feels stressful, **BeReal** could be the escape you've been craving. The anti-Instagram app only allows you to post once a day at a completely random time. Catching people off guard forces them to share whatever they're doing in that exact moment—like lounging in bed watching Netflix or doing chores. The app also prevents lurking by only allowing you to see other people's posts once you share your own BeReal moment of the day. And it turns out spontaneity is a hit. BeReal was the second-most downloaded social media app throughout May, exceeding 10.7 million global installs to date.

When platforms are dominated by celebrities and high-profile creators, everyone else tends to keep quiet. That's why **Quilt** encourages all users to share their realest thoughts through self-care-focused conversation rooms. Around 60% of conversations are hosted spontaneously rather than being a promoted "event," giving the platform an authentic, off-the-cuff feel. Quilt also takes pride in the fact that over 50% of users speak up during any given conversation—proving that when the pressure is removed, genuine connections are formed.



2 ESCAPING THE ECHO CHAMBER

In theory, social platforms are places to learn new things, expand your horizons, and encounter diverse viewpoints. In practice, however, they've become places to find other people who think like you, and team up against the people who don't. These echo chambers are especially dangerous for young people whose opinions are largely formed based on what they see online. Once the algorithm gets an inkling for their personal preferences, that's the virtual box they're forced into.

As mainstream platforms are called out for fueling polarization, we'll see safer spaces for nuanced dialogue emerge. Looking ahead, the networks that welcome healthy disagreements and make room for a mix of voices will keep our attention for the long term.

Meet the social networks fostering two-way learning and growth:

Polemix is an invite-only app aiming to make young people "listen to the outside." Its interface is similar to TikTok, but every video features a person making an argument for or against a preset list of controversial questions, like "Should human gene editing be legal?" or "Has political correctness gone too far?" At the bottom of each video are buttons that read "Respect But Disagree" and "Convinced By You." Instead of just serving up videos you'll agree with, Polemix's algorithm combats online echo chambers by showing a wide range of opinions.

Berlin-based **Beams** is creating a safe space for people around the world to "come together and share diverse views." Anyone can start a group, record themselves speaking on a particular topic, then invite others to chime in and share their unique perspective. Beams' founders say the platform emphasizes group collaboration rather than individual creators—making it more like a Reddit forum than Instagram. To deliver on that promise, the app has no likes and no profiles to follow.

If Twitter is where you blast heat-of-the-moment thoughts to anyone who will listen, then **Collate** is where you share well-considered, fully fleshed-out letters with public figures. The idea is that everyday people are given direct access to political, cultural, and intellectual leaders—allowing them to ask questions, pose challenges, and engage in respectful debate. To encourage nuanced conversation, users must post a minimum of 100 words.

3 FINDING YOUR NICHE

For today's teens and tweens, the art of fitting in is more complex than ever before. Not only do they have to reckon with their reputation at school, they have to find their place in a much larger online world. In many ways, you can think of social media as the new school cafeteria. But instead of lunch tables, there are seemingly endless platforms to explore—each with their own unspoken rules, lingo, and aesthetic. Even once you choose your portfolio of platforms, deciding where you sit within them is a whole other dilemma. On TikTok, for example, there's an infinite, ever-evolving array of personas to try on. Are you more angelcore or royalcore? Maybe the soft girl aesthetic is more your vibe? Do you jibe with WitchTok? How about BookTok? Whatever you do, don't be *cheugy*.

While navigating the mass platforms can quickly feel overwhelming, a new crop of interest-based digital campfires are making it easier for people to find their crew. Think quality of relationships over quantity depth over breadth.

Meet the apps making online connections count:

Chinese social network **Soul** is all about passions over appearances. After crafting their avatar and taking an elaborate personality test, Soulers are sent to interest-based "planets" where they can connect with like-minded people. By presenting people as avatars rather than their real selves, Soul removes the pressure to impress and allows for more honest interactions.

Aesthetics Wiki is helping young people identify their vibe. "Honeycore," "vaporwave," "pastel goth" and "dark academia" are just a few of the endless aesthetics found on the popular site, which uses Wikipedia's open source code. While not technically a social media platform itself, Aesthetics Wiki contributors connect via Discord, where they chat in detail about the many genres and guide newcomers to the one that suits them best.

Rather than prioritizing the individual, **Somewhere Good** is building a feeling of inclusivity around shared interests. Upon signing up, users can enter one of four worlds that they most identify with: Artist Rituals, Communal Care, Radical Library, or Deep Discourse. Within each world, the app shares a daily prompt such as "How do you stay present?" and then allows people to respond in the form of voice recordings. Somewhere Good sets itself even further apart with a unique look inspired by Black culture and early web design.

THE NEW MARKERS

Traditional status symbols are getting a metaverse makeover. While most of us are still trying to figure out the Wild West that is Web 3.0, the wealthy are diving in headfirst—dropping major money on everything from designer avatar outfits to virtual plots of land. But what they're buying is only half of the story. For these big crypto spenders, the real prize is the world they're buying into.

Metaverse Land Rush

When it comes to building wealth in the real world, owning land is a prime place to start. And the same goes for the metaverse. Even the number one rule in real estate—"location, location, location"—holds up, with high-profile, heavily trafficked virtual destinations attracting big spenders. Just ask the guy who paid \$450,000 to be Snoop Dogg's metaverse neighbor. So, what exactly is this nonexistent land good for? More than you might think. Digital landowners can build out properties, make money off ads, host virtual events like concerts or parties, and develop blockchain-based games. And the more popular the space becomes, the higher the property value. Back in 2021, for example, virtual real estate company Republic Realm sold 100 virtual private islands in Sandbox for about \$15,000 each. By the start of 2022, the individual islands were selling for \$300,000—the same as the average home price in the U.S. Not a bad return on investment for those with the courage (and cash) to take the risk.

Virtual Drip

The same designer clothes and fancy handbags that signal wealth on the streets are turning heads in the metaverse. Gucci, Moschino, Balenciaga, and Fendi are just a few of the luxury labels rolling out digital collections for our avatars. But don't assume that cyber couture comes cheaper than the real thing. Last year, the internet went wild when a Roblox player shelled out \$4,115 for an entirely virtual Gucci purse—more than its \$3,400 physical counterpart. The purse's astonishing value was attributed to its exclusivity, proving that people are willing to pay big money for limited items even if they can't rock them IRL. "Being able to buy high-end accessories for my avatar, who is an extension of me, makes me feel more connected in the metaverse," says VR fashion influencer Leah Ashe.³¹ As we spend even more time in virtual environments going forward, we'll want to ensure our digital doubles are dressed to impress. After all, you never know who you might run into in the metaverse.

NFT Art

Art collecting—a long-standing hobby of the rich—is facing some fierce competition from NFTs. To see the similarities, look no further than Bored Ape Yacht Club (BAYC), one of the most highly regarded NFT collections out there. Like any great work of art, the value of BAYC NFTs is driven by scarcity (there are only 10,000 virtual apes in existence), hype (thanks to endorsements from A-listers like Madonna, Justin Bieber, and Steph Curry), and broad appeal (Twitter-verified Bored Ape profile pics have become a surefire way to rack up internet cred). Another key element of the equation is community. Just as art auctions are places to rub shoulders with influential people, NFT ownership unlocks access to an illustrious group. The crypto elite are known to exchange valuable trading tips within closed Discord groups. And in some cases, those tips are worth their weight in NFT gold.

Members Only

There are few things the elite love more than exclusivity. While the metaverse itself may be open to anyone with a VR headset, pricey NFTs are increasingly being used as entry points into exclusive real-world experiences. At the end of last year, for example, McLaren challenged fans to collect and build the latest Formula 1 car with collectible NFTs. The first person to build a complete car using all 22 NFT parts (some of which cost up to \$500) was awarded a VIP experience at Formula 1. A similar trend is unfolding in the restaurant space, with Flyfish Club soon to become the world's first members-only private dining club where membership is purchased on blockchain. The Flyfish token, initially offered at 2.5 Ethereum (~\$8,400), gets you into the restaurant and cocktail lounge, while the Omakase token, offered at 4.25 Ethereum (~\$14,300), gets you all that plus entry into the exclusive Omakase room. And last but certainly not least, there's always private yacht parties—a fan favorite among NFT holders.

OF METAVVERSE STATUS

For those who have yet to take the NFT plunge, dropping thousands of dollars on purely virtual assets might seem absurd. But when you break it down, these new markers of metaverse status are fulfilling the same innate needs that luxury goods always have—social credibility, self-esteem, belonging, and a sense of accomplishment. And while investors warn that prices will drop as the novelty wears off, the everlasting desire for status is sure to give premium digital goods staying power. Because for those buying into this brave new world, the possibilities feel priceless.

THE EMOTIONAL FRONTIER

AI is Getting an EQ Boost

Tech companies know a lot about us. They know where we like to shop, how many steps we take in a day, who our closest friends are, what we believe in, the list goes on. And soon, they could also have real-time insight into how we feel. From mood forecasting wearables to emotion recognition surveillance, our once-private feelings are being monitored, predicted, and exploited in entirely new ways. And it's only the beginning. According to Allied Market Research, the emotion detection and recognition market is expected to reach a whopping \$103 billion by 2030.³²

So what happens when tech encroaches on the very thing that makes us human, the most coveted resource of all? The reality is, we don't know yet. Critics say emotion recognition AI is not only unethical, but also deeply flawed and inaccurate, while supporters say it has great potential for early detection of mental health issues. What we do know, however, is that things tend to get messy when emotions are involved. And when you're talking about a deeply personal field with no rules and little precedent, run by an industry with a less-than-stellar reputation, the possible pitfalls are even more alarming.

MAPPING THE MOOD MARKET

A look at how emotion recognition tech is being used today, and what it could mean for our future

Student Surveillance

Hong Kong startup Find Solution AI is using next-gen software to monitor students' emotions as they study. The software, called 4 Little Trees, works by measuring children's facial expressions via the camera on their computer or tablet. It then generates reports on their strengths, weaknesses, and motivation levels, and forecasts their grades. The number of schools using the software more than doubled from 34 to 83 when learning went remote during the pandemic.

EEG-Enhanced Shopping

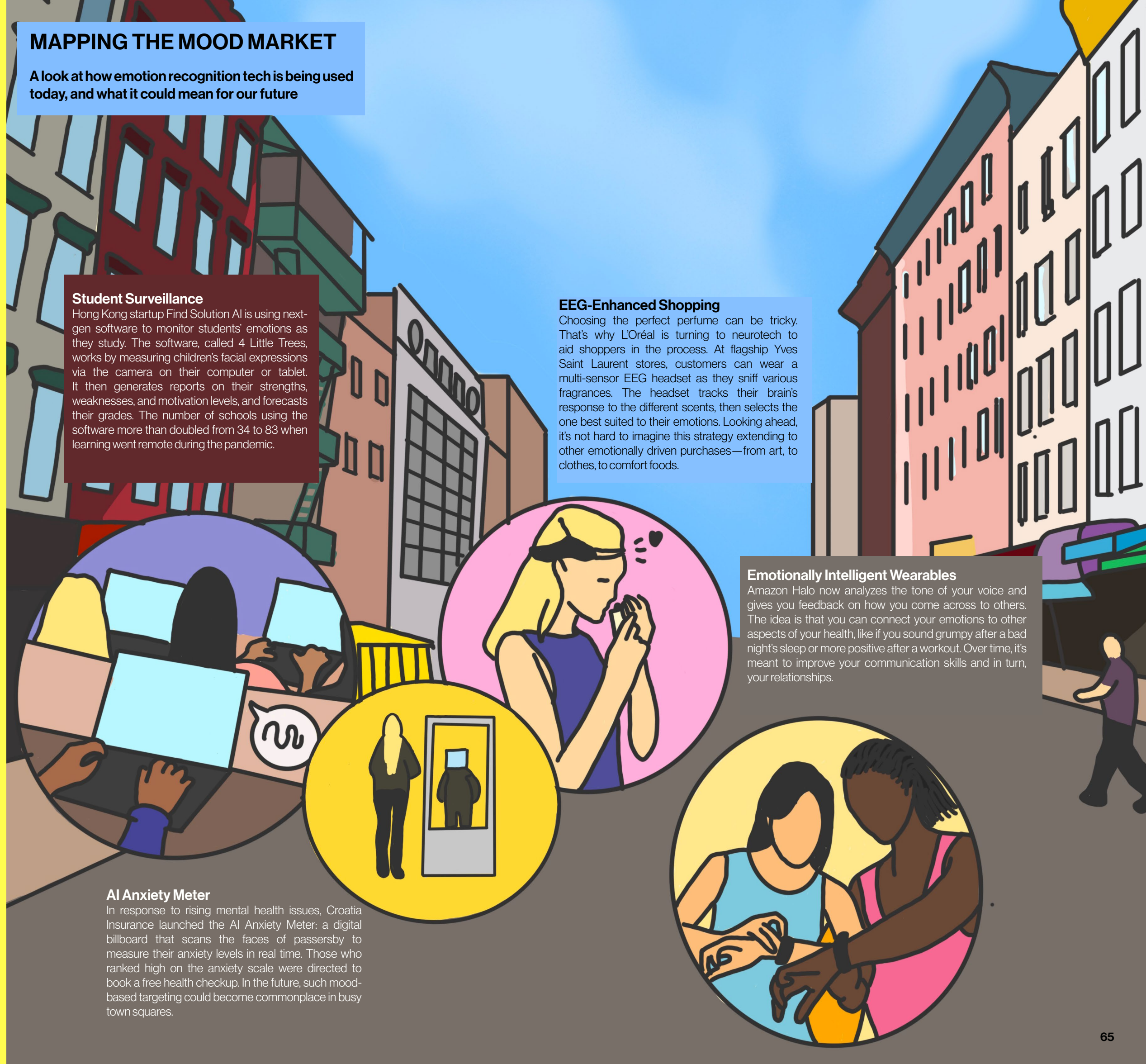
Choosing the perfect perfume can be tricky. That's why L'Oréal is turning to neurotech to aid shoppers in the process. At flagship Yves Saint Laurent stores, customers can wear a multi-sensor EEG headset as they sniff various fragrances. The headset tracks their brain's response to the different scents, then selects the one best suited to their emotions. Looking ahead, it's not hard to imagine this strategy extending to other emotionally driven purchases—from art, to clothes, to comfort foods.

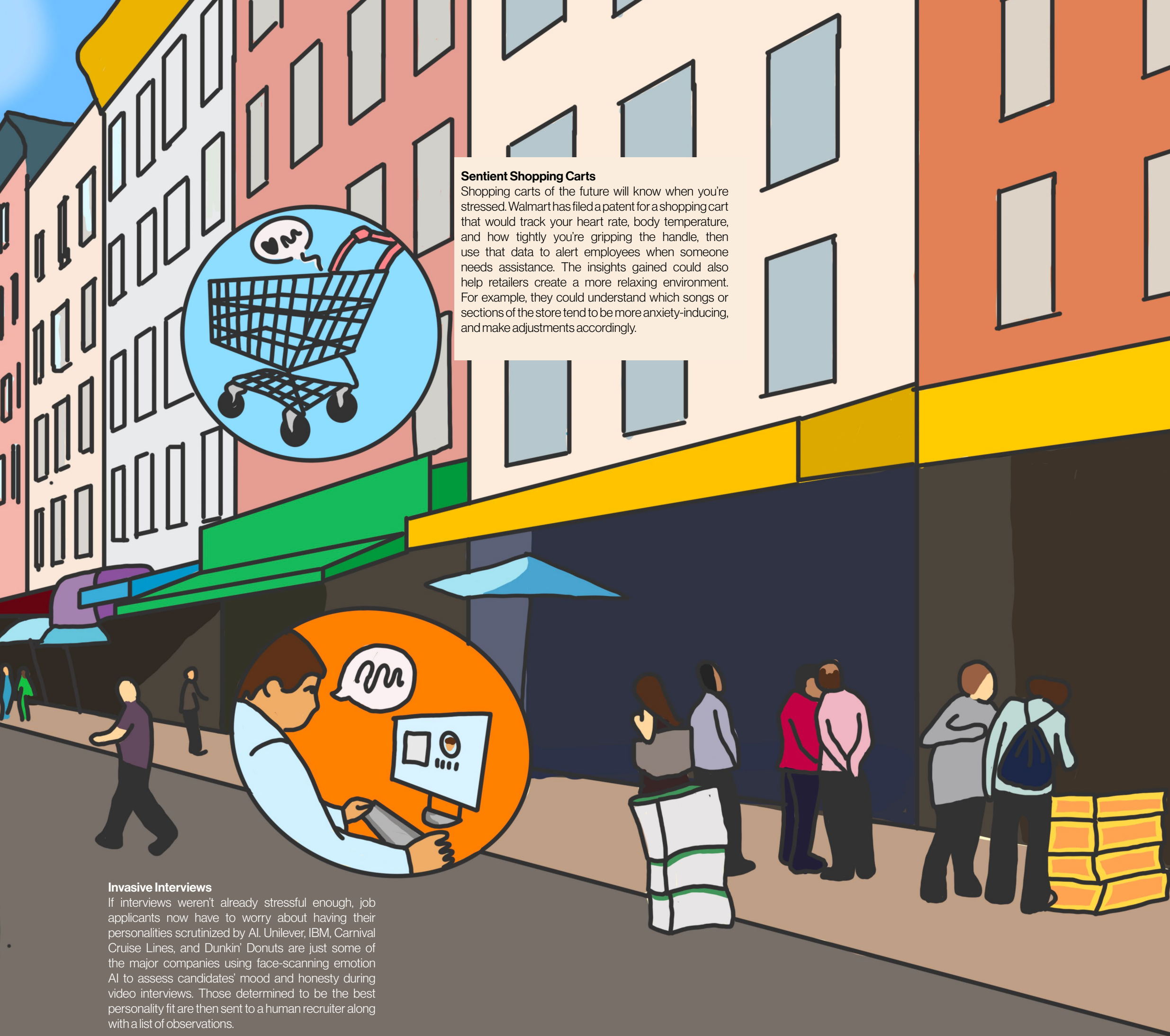
Emotionally Intelligent Wearables

Amazon Halo now analyzes the tone of your voice and gives you feedback on how you come across to others. The idea is that you can connect your emotions to other aspects of your health, like if you sound grumpy after a bad night's sleep or more positive after a workout. Over time, it's meant to improve your communication skills and in turn, your relationships.

AI Anxiety Meter

In response to rising mental health issues, Croatia Insurance launched the AI Anxiety Meter: a digital billboard that scans the faces of passersby to measure their anxiety levels in real time. Those who ranked high on the anxiety scale were directed to book a free health checkup. In the future, such mood-based targeting could become commonplace in busy town squares.





Sentient Shopping Carts

Shopping carts of the future will know when you're stressed. Walmart has filed a patent for a shopping cart that would track your heart rate, body temperature, and how tightly you're gripping the handle, then use that data to alert employees when someone needs assistance. The insights gained could also help retailers create a more relaxing environment. For example, they could understand which songs or sections of the store tend to be more anxiety-inducing, and make adjustments accordingly.

Invasive Interviews

If interviews weren't already stressful enough, job applicants now have to worry about having their personalities scrutinized by AI. Unilever, IBM, Carnival Cruise Lines, and Dunkin' Donuts are just some of the major companies using face-scanning emotion AI to assess candidates' mood and honesty during video interviews. Those determined to be the best personality fit are then sent to a human recruiter along with a list of observations.

How to stay on the brighter side of emotion recognition

1

Steer clear of emotional profiling

For brands entering this space, one big watch-out is to avoid profiling people based on their emotions. Consumers have already voiced this as a major concern, as seen with the recent backlash against a Spotify patent that would allow the company to analyze users' speech and recommend music based on their alleged mood. The issue with this controversial patent, as pointed out in an [open letter](#), is that it could give the music giant a whole lot of power over people's mental state. If the technology determines that a user is feeling down, for instance, it may suggest more sad music in order to keep them on the platform for as long as possible.

The implications of emotional profiling are even more worrisome when you look beyond brands. Once emotional AI is being used to decide who does and doesn't get certain jobs, or to predict students' chances of success, or to gauge citizens' alliance to an authoritarian regime, there's a huge problem. Especially considering these systems are admittedly biased.

On a cultural level, we were just starting to get comfortable owning and expressing our emotions. Now, as emotion recognition tech takes off, fears of having those emotions exploited could very well set us back if brands overstep. It's no wonder why 42% of people are uneasy about brands having real-time access to their mood data (Backslash, 2021).

2

Make it personalized, but not promotional

On a more positive note, brands have an opportunity to leverage emotional AI to create a level of personalization never seen before. That is, so long as that personalization has a clear benefit for the individual. Just as we've become accustomed to tracking our physical health, for example, tracking our emotional state could provide insights that help us lead a happier life. Perhaps you get a mood boost after talking to certain people or engaging in certain activities and can use those learnings to optimize your lifestyle habits. That said, if those insights are only used to sell people more stuff, consumers will quickly become weary. Because let's face it, no one wants to have their brain scanned just so they can be sold a candle.



THE END OF THE SINGULAR SELF

THERE'S NO QUESTION THAT VIRTUAL WORLDS WILL ALLOW PEOPLE TO EXPERIMENT WITH ENDLESS VERSIONS OF THEMSELVES. THE REAL-WORLD LIMITATIONS OF APPEARANCE, GENDER, GEOGRAPHY, AND REPUTATION ARE THROWN OUT THE WINDOW. SOCIAL NORMS ARE LOOSER OR ALTOGETHER NONEXISTENT. AND IN MANY WAYS, IT FEELS FREEING.

BUT LOOKING FORWARD, ONE OF THE BIGGEST CHALLENGES FOR BUSINESSES WILL BE ENSURING THAT OUR ONLINE AND OFFLINE IDENTITIES REINFORCE ONE ANOTHER RATHER THAN COMPETE WITH ONE ANOTHER. BECAUSE NOT ONLY WILL JUGGLING SEVERAL ALTER EGOS GET OVERWHELMING FAST, IT COULD ALSO REALLY MESS WITH OUR SENSE OF SELF. AND IT'D BE A SHAME IF WE ALL BECAME MORE COMFORTABLE IN OUR AVATAR SKIN THAN OUR REAL ONE.



FIGURING OUT WHAT WAS “REAL” USED TO BE PRETTY STRAIGHTFORWARD. IF YOU COULD SEE, FEEL, AND WEAR A PIECE OF CLOTHING, IT WAS REAL. IF YOU WATCHED A VIDEO OF DAVID BOWIE SINGING, IT WAS PRETTY SAFE TO ASSUME THAT IT WAS ACTUALLY HIM. AND IF YOU READ AN ARTICLE, ODDS ARE IT WAS WRITTEN BY A LIVING, BREATHING HUMAN BEING. BUT WITH OUR WHOLE WORLD GOING VIRTUAL AND AI INVADING EVERY ASPECT OF OUR LIVES, THAT’S SET TO CHANGE. FOR THE FINAL CHAPTER, WE TEAMED UP WITH TBWA’S BRAND EXPERIENCE AND INNOVATION PLATFORM, NEXT, TO UNPACK THE WAYS IN WHICH TECH IS WARPING OUR NOTIONS OF REALITY.

Say a Goodbye to Reality as You Know it

You've seen the headlines hyping up the metaverse takeover—a series of lofty predictions that we'll soon spend more time in the virtual world than the physical one.

Whether this Ready Player One future feels exciting or terrifying to you, the fact of the matter is that extended reality hardware has a long way to go before “living” in the metaverse is actually feasible. Gartner predicts that 25% of people will spend at least one hour a day in the metaverse by 2026 either for work, shopping, education, or entertainment.³³ Yet as it stands now, up to 70% of VR users experience motion sickness, headaches, and dissociative effects. It's as if our bodies are rejecting the tech altogether.³⁴

To make the metaverse less nauseating, we'll have to say goodbye to one of the last bridges to “reality” as we know it—the interface. Because so long as we're being transported to virtual worlds via traditional control devices like joysticks, glass rectangles, bulky headsets, and brick laptops, those virtual worlds will never truly feel like an extension of our physical one.

And sure enough, that's just what tech companies are working on. Interfaces are becoming lighter, less obtrusive, or—in the case of AR contact lenses and brain computer interfaces—disappearing altogether. At the same time, very real sensations are making their way to virtual environments with the help of vibrating haptic suits, VR scent masks, and more.

Unsurprisingly, one leader in this race toward a fully immersive metaverse is Meta. The tech giant recently unveiled four VR headset prototypes intended to create virtual experiences that are “indistinguishable from reality.” “I think we're in the middle of a big step forward toward realism,” Zuckerberg told reporters. “I don't think it's going to be that long until we can create scenes with basically perfect fidelity.”

If and when this dream is realized, and the physical and virtual worlds converge once and for all, our ideas of what's “real” will never be the same. So buckle up, grab a pixel-flavored Coke, and prepare to be deeply immersed (VR headset not required).

Below we explore the innovations shaping the future of immersive tech. The first category details all the ways in which sensory technologies are making us FEEL more immersed, while the second category looks at how we're actually BEING more immersed due to the removal of interfaces.

Sensory tech is making it harder for our bodies to figure out what's real.

VIRTUAL PLEASURE VIBRATIONS

While haptic vests are delivering pain, another kind of vibrating device is purely in the business of pleasure. The **KIIROO Titan** is the first VR headset that pairs with a vibrating stroker to deliver an out-of-this-world sexual experience. Not only can the device work in sync with interactive adult videos watched through the headset, it can also be controlled by an actual human partner from anywhere in the world.

METaverse SCENT TECH

Imagine you—or your avatar—come across a beautiful beach while enjoying a virtual mini-vacation. You can see the water and hear the waves, but without the familiar smells of sunscreen and the salty ocean breeze, your beachy escape will probably fall short of the real deal. To bridge the scent gap, **OVR Technology** has created a Bluetooth-enabled snap-n-scent cartridge that attaches to your VR headset and releases hundreds of different smells. It's currently being used to enhance virtual therapies, such as incorporating nature scents during guided meditations, but OVR is aiming to roll out the scentware more widely in the near future.



FEELING more immersed



HAPTIC SENSATIONS

Though not new, haptic technology is quickly advancing and bringing a whole array of physical sensations to virtual worlds. One leader in the space is Spanish company **OWO**. Their skintight haptic vests are fitted with electrodes that can stimulate over 30 different sensations common in gaming—such as falling through the air, being shot, or—on a less painful note—hugging. Meta, too, is going all in on haptics, but they're currently focused on touch. The company recently revealed a prototype for haptic gloves that would replace old-school VR controllers. Using a combination of sensors, motors, and tiny air pockets, the glove will be able to mimic pressure, weight, and touch. In other words, picking up objects, holding hands, and touching surfaces in the metaverse will feel pretty darn close to the real thing.



20/20 VR VISION

Unimpressed with the visual capabilities of current VR headsets, Zuckerberg is setting out to “create displays that are as vivid and realistic as the physical world” with the four headset prototypes mentioned above. Each prototype was created to master different visual challenges that are currently preventing the human eye from interpreting VR scenes as “real.” These challenges include: the ability to focus on any depth, eliminating lens distortion, achieving a resolution as high as the human retina, and creating sufficient dynamic range to simulate everything from total darkness to a super bright environment. Once these capabilities are perfected and combined into one headset, our eyes will have a very hard time distinguishing a physical sunset from a virtual one.

The fewer interfaces, the deeper the immersion.

BEING more immersed

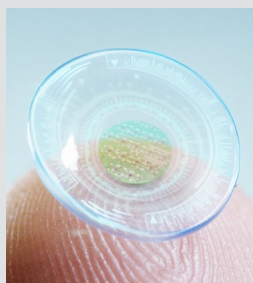
MIND CONTROL HEADBANDS

Snap's latest acquisition hints at a metaverse controlled by thoughts. The company has purchased **NextMind**, a French startup making noninvasive headbands that allow users to "push a virtual button simply by focusing on it." In other words, the headband monitors your neural activity in order to figure out your intent—such as whether you want to move a virtual object—then completes the action hands-free. The technology could go a long way toward solving the usability challenges of head-mounted displays. Currently, for instance, it's difficult to control AR devices like Snap's Spectacles without an accompanying app.



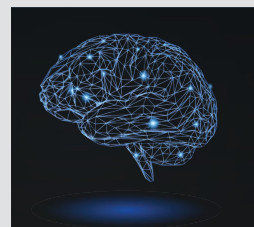
AR CONTACT LENSES

Sure, AR glasses are cool and all. But what if you could ditch the frames altogether? **Mojo Lens** is the world's first Invisible Computing device that overlays digital information directly onto our physical world. The contact lenses can project crucial information right when you need it, so you can navigate the trails on a ski slope, see your talking points during a presentation, or check out reviews for the café across the street—all without holding a device or looking down at a screen.



FACE-CONTROLLED VR

"Smile to move" may soon become a common instruction in virtual reality environments. A team of researchers from Australia, New Zealand, and India have figured out how to make a person's facial expressions trigger specific actions in VR without the use of a handheld controller. For example, a smile was used to trigger the "move" command, a frown for the "stop" command, and a clenched jaw for the "action" command. The researchers found that overall, people felt more immersed in VR experiences controlled by facial expressions compared to those controlled with a handheld device. The system will also allow people with disabilities to interact with VR hands free—marking a major win for metaverse inclusivity.



BRAIN COMPUTER INTERFACES

The human-to-hardware relationship doesn't get more fluid than **Brain Computer Interfaces (BCIs)**. With BCIs, we'll be able to type, use devices, and control computers simply by thinking. While you've probably heard of Neuralink, the infamous brainchild of Elon Musk, you may be less familiar with a startup called Synchron. On July 6th, Synchron became the first company in the U.S. to implant a BCI in a patient with ALS (a nervous system disease that causes loss of muscle control), giving doctors hope that BCIs could vastly improve quality of life for people with disabilities. But once such implants become available to all, it'll be up to us to decide when the tech-human connection has gone too far.

WHAT IF

Virtual environments included time limits and health monitors? Ensuring that deeper immersion doesn't come at the cost of our well-being.

WHAT IF

Rather than replicating our physical world, VR companies developed totally fantastical alternate realities? Creating imaginative escapes that couldn't possibly be confused with the real world.

WHAT IF

"Reality checks" reminded us of the real-life consequences of our virtual actions? Before purchasing items in the metaverse, for example, your bank could notify you of your self-imposed spending limit. Or, if you're about to say or do something inappropriate, a pop-up might remind you that there's a real human on the other end.

Q: Is AI good or bad for creativity?

A:

There is no simple answer to this question as the effects of artificial intelligence on creativity are complex and nuanced. Some people believe that AI can be a valuable tool to help humans be more creative, as it can provide new ways of thinking and new perspectives on problems. However, others worry that AI may ultimately lead to a loss of creativity, as it could replace human workers in many creative industries and lead to the standardization of ideas.

Contrary to what you might think, we didn't write that paragraph. In fact, no one did. It was generated by OpenAI's [GPT-3 Playground](#), the world's most advanced language model AI. We just typed in the prompt, and it spit out a surprisingly smart, unbiased response in seconds. Not bad, bot.

While we were at it, we decided to play around with [Midjourney](#), an AI model that creates images from text.

This is what we got when we typed in "Impressionist painting of an alien wearing a VR headset."



Artificial Creativity: ☺ Friend or Foe? ☹

If you work in the creative field, there's a good chance that that AI-generated paragraph and images on the previous page are making you uneasy about the future of your career. We'll admit, we were also a bit taken aback by AI's creative chops.

Despite previously held beliefs, it appears that creatives aren't immune to AI's influence after all. Giant leaps in the progression and availability of AI models are driving a shift from purely logical, task-oriented applications to more artful, previously impossible outputs—challenging our ideas of "real" creativity. But while much of the world—especially the advertising industry—is resisting AI's ever-expanding role, we at TBWA are welcoming it. As the Disruption company, we'd be foolish not to leverage AI as another weapon in our creative arsenal. A new medium to experiment with and be inspired by. An opportunity to challenge convention and push the boundaries of what's possible.

To demonstrate the possibilities, we've outlined three ways AI is being used to enhance human creativity, not replace it.

1

AI FOR INSPIRATION

AI has an incredible ability to fuel inspiration. Let's take OpenAI's text-to-image generator, DALL-E 2, as an example. While many fear that the tech will make artists and designers obsolete, we've already seen it trigger creativity in a number of unexpected ways since becoming available to a select group of users earlier this year.

Heinz challenged DALL-E 2 to create a sauce-inspired art series for its [latest campaign](#)—proving that even AI thinks of Heinz when it thinks of ketchup. Amateur urban planners are using the tool to [imagine](#) what cities would look like if they were designed for pedestrians instead of cars. Social media users are having a field day coming up with clever prompts and [sharing](#) their weirdest results. And designer Moritz Stefaner has used Midjourney (an AI art generator similar to DALL-E) to spark totally [new ideas](#) for fine dining dishes. "I'd love to do creative sessions with ambitious chefs to generate inspiring images, based on new prompts (or their existing menus!) and then see if we can together reverse-engineer them into successful dishes," Stefaner says. "It's a new type of agent you can inject in your design process to generate completely new, oblique ideas."

Implications

Much like a designer might reference Pinterest for inspiration, AI is becoming another tool for rapid creative exploration. It will allow us to access an infinite source of imagination, create unexpected variations of an existing idea, and push the limits of the human mind. And at its best, AI could take us down a completely unpredictable path. Perhaps you start with a prompt about "a colorful, futuristic world where everything is made from recycled materials," and end with a brilliant idea for a sustainable shoe design. In the world of AI art, anything can happen.

2

CREATIVE CONVENIENCE

A second selling point for Artificial Creativity, as with most technologies, is good old efficiency. Just as robots can assemble hundreds of products in minutes, AI can churn out creative work at record speeds. But before you get too bummed out by the thought of mass-produced [poetry](#) or automated [classical music](#), those aren't exactly the use cases we're encouraging (though they do exist). Rather than taking the magic away from highly emotional or intellectual types of creativity, we're optimistic about the potential for AI to do the not-so-inspiring grunt work.

In the case of film production, for instance, AI is now able to [auto-dub](#) TV shows and movies in any language using just five minutes of audio recordings from the original actors—a task that otherwise takes months. Similarly, a new wave of AI companies are completely overhauling digital content production. One example is [Hour One](#), a startup that pays people to hand over the rights to their face, then uses their deepfake-style clone in promotional and educational videos for more than 40 different companies. For clients like Berlitz, an online language school that cranks out thousands of video courses, Hour One's technology is a total game changer.

Implications

As much as we like to romanticize the creative process, actually executing the work is often repetitive and straight up tedious. For the instances where you just need to get stuff done on budget and on time, AI could save creative companies a major headache.

Think of AI as an additional member of your team who is incredibly efficient and never needs sleep or coffee. It's not replacing human team members, since we'll always need people to come up with ideas, give feedback, and make the final decisions, it's just freeing them up to do the truly creative tasks.

3

EXECUTING THE IMPOSSIBLE

Thirdly, AI is allowing creatives to do the otherwise unthinkable—like restoring historic footage or giving dead actors a new life on screen. That's right, we're talking about deepfakes. While the technology has certainly had its fair share of bad press, and rightfully so, we're beginning to see signs of a brighter future.

For example, Metaphysic—the startup behind those viral [Tom Cruise deepfakes](#)—is out to prove that AI can make some pretty compelling ads. Like this 2021 Gillette [campaign](#) featuring a young 1989 Deion Sanders, or this Belgian Football Association [commercial](#) that brought two former managers back to life. We're also seeing deepfakes being used as a new form of artistic expression. In Kendrick Lamar's [music video](#) for "The Heart Part 5," his face morphs into deepfakes of Kanye West, OJ Simpson, Will Smith, Kobe Bryant and Nipsey Hussle—serving as cultural commentary on the shared Black experience. And finally, in terms of audio, there's AI voice platform Sonantic. The startup was recently acquired by Spotify, but first made headlines by helping "Top Gun" actor Val Kilmer [reclaim his voice](#) after damage from throat cancer.

Implications

When done right, AI-generated media can unlock entirely new creative possibilities—and the examples we've seen thus far are just the tip of the iceberg. But as made clear by the Anthony Bourdain [backlash](#), there's also a lot that can go wrong. Abiding by both spoken and unspoken ethical guidelines will be key for companies using deepfake tech going forward. These include clearly labeling manipulated media so people know what's real and what's not, getting consent from all involved, and responsibly distributing the content to make sure it doesn't end up in the wrong hands.



IF YOU'RE ALREADY TIRED OF HEARING ABOUT THE METAVERSE, KNOW THAT THIS IS ONLY THE BEGINNING. WE'RE STILL IN THE EARLY STAGES OF BUILDING THE FOUNDATION FOR A VIRTUAL-FIRST, AI-DRIVEN WAY OF LIFE, AND THOUGH WE DON'T YET KNOW THE FULL IMPLICATIONS, WE DO KNOW THAT A POST-REALITY FUTURE IS UPON US.

AS WE NAVIGATE THIS ON/OFFLINE BLUR, IT'LL BE UP TO BUSINESSES AND LAWMAKERS TO ESTABLISH A CODE OF ETHICS FOR THE DIGITAL ENVIRONMENTS WE INHABIT. AR COMPANIES CAN LIMIT AD TARGETING OPTIONS TO ENSURE THAT FILTER BUBBLES DON'T CREEP INTO THE PHYSICAL WORLD. WEB3 DESIGNERS CAN IMPLEMENT NEW VISUAL CUES TO HELP US DECIPHER AND AUTHENTICATE WHAT'S REAL. AND GOVERNMENTS CAN PREVENT ABUSIVE BEHAVIOR BY APPLYING REAL-WORLD LAWS TO OUR VIRTUAL WORLDS.

THE METAVERSE HAS POTENTIAL TO TAKE US TO PLACES WE ONLY DREAMED OF. BUT IF WE DON'T PROACTIVELY SET BOUNDARIES NOW, WE COULD END UP IN A SIMULATION THAT NO ONE WANTED.

SO, CAN TECH REWRITE ITS WRONGS?

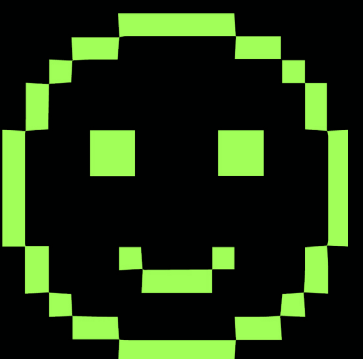
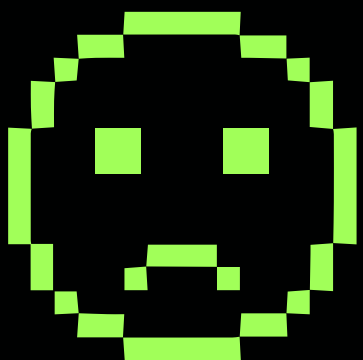
In the spirit of practical optimism, we believe that yes—tech can rewrite its wrongs. And while we'll all have a role to play, the real changemakers will be the businesses behind the technologies we use every day. Not just the tech industry itself, but every company that asks us to download their app, check out their website, play their interactive game, or watch their latest ad.

With techlash mounting, “solutions” that put the onus on users will no longer cut it. Privacy protections should default to the most secure settings possible—requiring people to “opt in” to tracking rather than forcing them to figure out how to “opt out.” Platforms should become so non-addictive that self-imposed screen time limits are no longer necessary. And technology’s impact on our identity and sense of reality should be measured and corrected before it’s too late.

Besides being the right thing to do, it’s also becoming increasingly clear that the companies who don’t take it upon themselves to change will soon have no other choice. Governments around the world are making major moves to limit tech’s power. Investors are shifting their funds toward ethical ventures like responsible AI startups and data privacy solutions. Half of tech users around the globe are making a conscious effort to reduce their screen time (Backslash, 2021). And workers, too, are using their leverage to demand better, with current Big Tech employees and prospective hires both refusing to be part of the problem.

The businesses that work with—rather than against—these forces will secure their place on the right side of tech’s history. Even more notably, they’ll become leaders in the push toward a healthier tech-human balance.

But in order to achieve this better balance, we’ll first need to toss out the idea that progress means more tech at all costs. This isn’t about creating an anti-tech society. It’s an opportunity to rein in the areas where tech has gone too far, and relentlessly pursue innovation that uplifts humanity. These are the endeavors that will define worthwhile progress in the years ahead. And if all goes right, we’ll eventually get back to appreciating what’s behind our screens just as much as what’s on them.



ABOUT

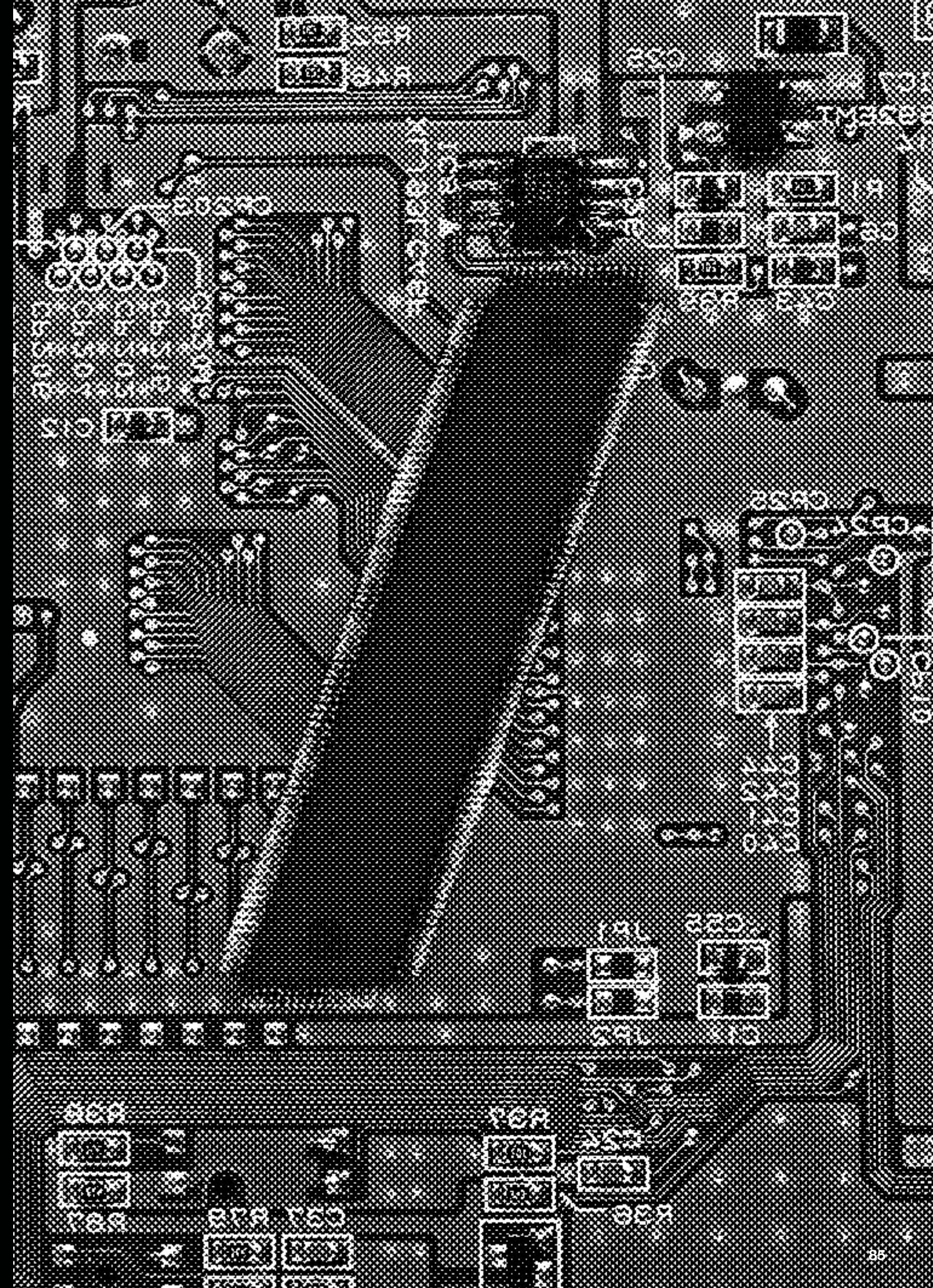
Backslash is a cultural intelligence unit powered by the global TBWA collective.

We believe that culture is bigger than what's trending now. When viewed through the right lens, it points us toward the sources of demand that are coming next. With support from over 330 Spotters, we closely observe and analyze worldwide developments so that TBWA—and our clients—can better anticipate cultural change.

Through a dynamic hybrid of strategy, data, and journalism, Backslash turns today's stories into tomorrow's opportunities.

Discover more at backslash.com and find us on Instagram @tbwabackslash.

BACKSLASH



EDGE DEFINITIONS

EDGE / 'ej / noun

A meaningful cultural shift that has the scale and longevity to propel a brand toward a greater share of the future.

PRIVACY

Health

IDENTITY

REALITY



Governments, brands, and devices are monitoring our every move. From apps discreetly tracking our data to fast-growing facial recognition systems, surveillance is becoming inescapable. But an increasingly skeptical society is carefully calculating risk and reward. It's privacy vs. convenience, public safety, and productivity, and what we value most remains to be seen.



A desire for control has us taking biology into our own hands. From the all-natural to the ultra high-tech, a growing category of treatments and products are helping people hack their way to a healthier, smarter, younger version of themselves. In the business of self-optimization, no upgrade is out of reach.



A society disillusioned with false promises of prosperity is generating wealth its own way. As trust in financial institutions declines and calls for accessibility intensify, a growing group of people will opt for the unconventional. Cryptocurrencies are enabling global financial inclusion. Equity crowdfunding platforms are breaking down barriers to investing and entrepreneurship. And play-to-earn gaming is unlocking valuable income. On the route to financial freedom, the rules of the road no longer apply.



On/offline blur is becoming our new reality. Shared virtual spaces are upending old ways of living, earning, and connecting. And digital doppelgängers are shattering the limits of self-expression and identity. But as all things physical dissipate, it will become increasingly difficult to distinguish where the real world ends and the metaverse begins. In a progressively fluid and seemingly limitless world, tangibility, intentional friction, and boundaries will keep us grounded.



Privacy is a 21st-century luxury. As surveillance spreads, privacy-conscious individuals are protecting their offline and online identities with secure search engines, hidden homes, encrypted apps, and AI-blocking accessories. In the age of 24/7 intrusion, stealth mode is peace of mind, and anonymity is the ambition.



A once-sterile healthcare industry is taking cues from the pleasurable parts of wellness, ushering in a more holistic and hyper-personalized approach. Pharmacies are offering in-store yoga. Smart toilets are providing in-app diet recommendations. And nationwide sleep challenges are incentivizing shut-eye. Who says the journey to better health can't be enjoyable?



An uptight world is ready to loosen up. Society is turning its back on impossible standards around one-note beauty, buttoned-up professionalism, and picture-perfect lifestyles—ushering in a refreshingly unapologetic attitude. We're collectively breaking free of unrealistic expectations, shamelessly flaunting our flaws, and taking pride in the work-in-progress. Aspiring to perfection is outdated.



A world exhausted by rationality is embracing the absurd. With so few roads left untraveled and questions left unanswered, we're increasingly seeking amusement in the unknown. From alt-TikTok to middle-of-nowhere expeditions, our quest for escapism will push us further into obscure and uncharted territory—giving rise to alternative forms of art, culture, and entertainment along the way.



The data rush is underway, and everyone's in fierce competition to get their share. Savvy users are cashing in on their data exhaust. Governments are investing billions in data systems that know us better than we know ourselves. And businesses are banking on data mining as the path to prosperity. As data's value skyrockets, we'll see the end of unchecked data grabs and vague permissions, and the start of a more formal data exchange economy.



A worldwide mental health crisis is bringing invisible struggles center stage. As shattered stigmas give way to accessible solutions, mental healthcare will go from reactive to proactive, from a nice-to-have to a need-to-have. Governments will recognize therapy as an essential. Brands will innovate with emotional well-being in mind. And workplace policies will get an empathetic rewrite. Mind maintenance is our new common priority, and we're practicing it daily.



A hyperpolarized society is ready to trade toxic intolerance for a commitment to progress. As the war on "wokeness" rages on and fear of cancel culture silences open debate, a growing group of people are refusing to participate in a divided world. The Counter Cancel movement will call people in to learn rather than calling them out—trading public shaming for healthy, nuanced conversation.



A desire for control has us taking biology into our own hands. From the all-natural to the ultra high-tech, a growing category of treatments and products are helping people hack their way to a healthier, smarter, younger version of themselves. In the business of self-optimization, no upgrade is out of reach.



Worsening inequality is bringing new divides to light. No longer just a wealth gap—the heat gap, health gap, education gap, and digital divide are exposing the very real consequences of rising inequality. And human rights are at stake. In the race to rebalance the scales, unlocking access is the next big market opportunity. Welcome to the great democratization.



Say goodbye to the Wild West of social media. High-profile battles against misinformation, data collection, screen addiction, and filter bubbles are fueling the "techlash," and social platforms are public enemy number one. While established players are racing to rewrite their wrongs, a wave of smaller, healthier, community-led platforms are coming to market with a clean slate and shiny new halo. Regulate or be regulated.



Inclusivity isn't a checkbox, it's a form of design thinking. As expectations around inclusivity skyrocket, hyper-critical consumers will sniff out tokenism and expose empty promises. Genuine inclusion requires an entirely new blueprint—building systems, laws, spaces, experiences, and products to be equitable and accessible from the bottom up. A fairer future awaits.



An aging population looking to relieve the dread of death is forcing an antiquated end-of-life industry to change its tune. Death doulas are normalizing mortality talk, biodegradable burial pods are giving death a sustainable reset, and digital legacy management companies are helping us put our online identities to rest. The reexamination of death is just beginning.



Human emotions are being analyzed and enhanced in entirely new ways. A modern wave of mood-boosting products and experiences are promising to make us calmer, happier, or even euphoric. And the emerging field of emotion AI is giving us—and the brands we buy into—advanced insight into how we feel. From functional fragrances to emotion-monitoring wearables, the market for mood modulation is booming.

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