



HELLO FUTURE

AR/VR: New  
dimensions  
of connection

Hello Future

JUNE 2021



FACEBOOK IQ



# What can we say, for sure, about the future?

We know our success depends on being prepared for it. Some of us are even obsessed with it. Yet we also know the future doesn't just happen. In fact, it is built—by people. It's built by people with vision, daring and determination. It's built by people all around us. And when we seek signs of what the future might hold, one of the most powerful things we can do is talk to colleagues, partners and visionaries who are literally building the future—the people

inventing new technologies and revolutionizing how we all connect.

That's what we do at Facebook IQ. We also analyze the trends we're seeing gaining momentum across our platforms around the world. And when we fuse it all together and apply our unique understanding of what drives over 3 billion people and millions of businesses, then the seismic shifts of the future start to become much clearer.<sup>1</sup>

# Introducing Hello Future Introducing



Hello Future is a journey into tomorrow and a new series of reports from Facebook IQ. Each issue enables you to focus on and strategize for an inevitable shift to come. Because when you do that, you have a chance to greet the future on your terms.





## Tomorrow's tech will exist to be unseen

In the future, it'll be AR and VR that bring us closer. But not the way you think. Friends will feel right next to each other, deeply connected even when oceans apart. The devices that connect us will be less distracting and more intuitive. In this future, we will live eyes up, connected to each other and the world around us.

As our tech melts away, so will the space between us.





AR (AUGMENTED REALITY)

Information is overlaid on top of the physical world, usually via a smartphone or tablet (at this time).



VR (VIRTUAL REALITY)

A fully immersive experience thanks to a headset that surrounds your senses in a virtual universe.



IMMERSE YOURSELF

Vist our digital experience:  
[fb.me/ARVR](https://fb.me/ARVR)

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Look up  
Look up  
Look up  
Look up  
**Look up and  
see the future**



# Imagine a world where you can be present in every moment, unrestricted by technology and distance.

At the core of what you are about to read lies what is at the core of all of us: our urge to be present with other human beings.

Presence is essential to not only our physical and mental well-being, but to our very existence. And if anything, the global pandemic has taught us how profoundly important it is to us all.

When our ability to be physically present with one another was suddenly limited by events outside our control, many of us struggled with the challenges of not being able to connect with friends, loved ones, co-workers and perfect strangers in the ways we are used to.

Technology has been an incredibly powerful tool for providing a sense of presence in those moments when it has been more scarce

than ever. Technologies like mobile phones, video calls and social media have connected us over distances near and far and allowed us to foster and grow relationships, even as our physical presence hasn't been possible.

Has this, in turn, accelerated our openness to new ways of feeling present?

And can the future allow us to be truly present whenever we want?

At Facebook IQ, we'd like to think so.



Imagine a world  
Imagine a world  
Imagine a world  
Imagine a world



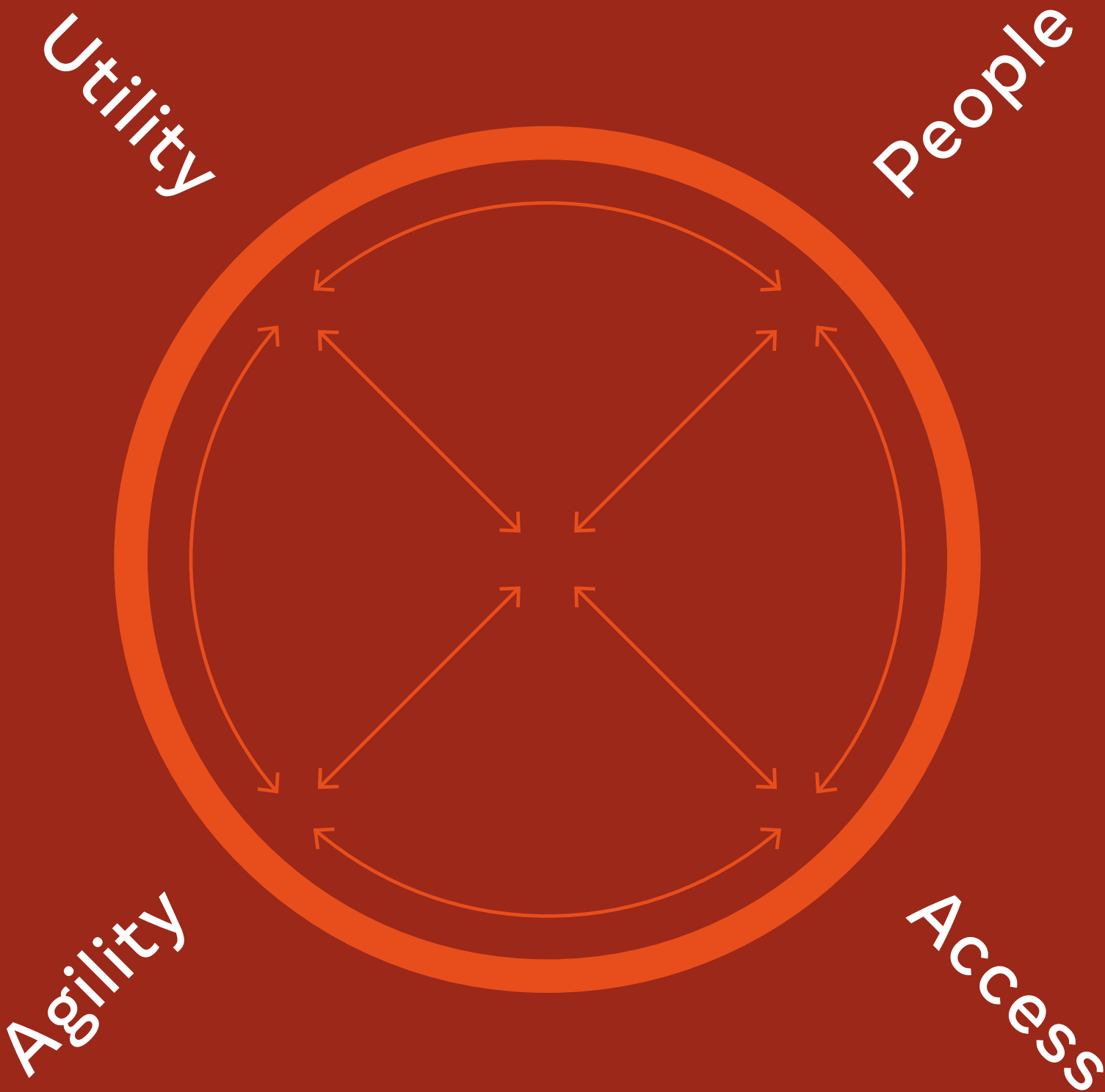
# Why now?

While the space race was literally won in a vacuum, it certainly didn't evolve in one. Major shifts in how we as humans engage with the world around us don't typically happen overnight, and they even more rarely happen for just one reason. And the signals are there, pointing us to the possibility that we are standing on the cusp of AR and VR as the next computing platform.

## THE CONVERGING SIGNALS DRIVING THE SHIFT TO THE NEXT COMPUTING PLATFORM

AR and VR are rapidly expanding from early use cases like gaming into productivity, education, health care and services.

People are looking for new ways to connect: In a survey, 74% said they see technology like AR as a way to bridge the online and offline worlds.<sup>2</sup>



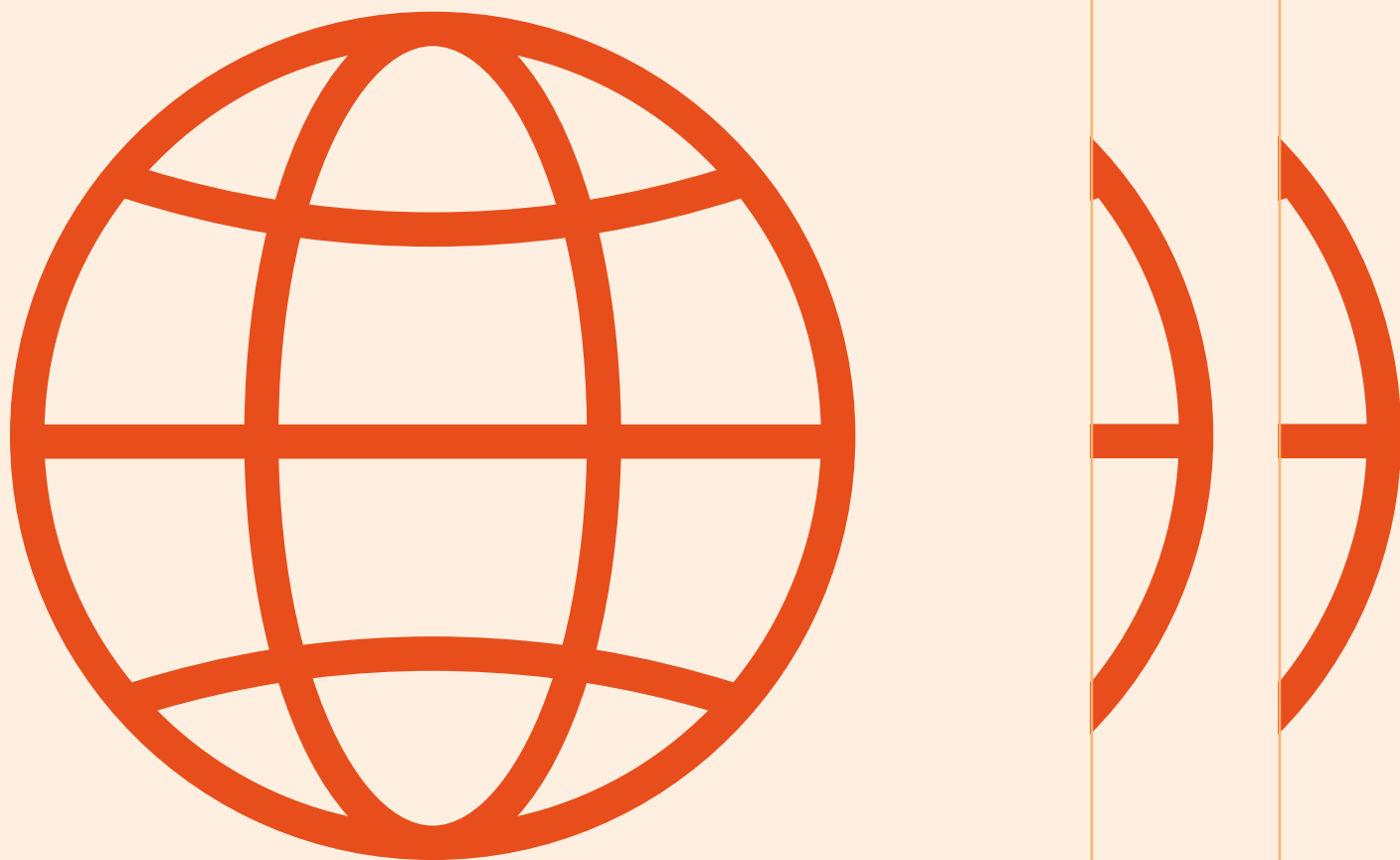
AR and VR experiences that took months to develop just a few years ago take weeks today. In the not too distant future, could that become a matter of hours?

People have greater access to AR and VR than ever before thanks to new developments and lower price points. If you've got a smartphone, you've got AR. And among those who've tried AR/VR to explore products or services, 44% said they did it for the first time since the pandemic started.<sup>3</sup>



# Follow the numbers

At the precipice of a rapidly expanding AR and VR market.



## REAL GROWTH AHEAD

6× increase in global spending on AR and VR predicted between 2020 and 2024.<sup>4</sup>

75% of business leaders anticipate using AR or VR by 2023.<sup>5</sup>

6×

increased global spending on AR and VR predicted by 2024 over 2020.<sup>4</sup>



## MOVING FROM DISCOVERY TO COMMUNITY

Searches for AR- and VR-related content on Facebook grew 44%.<sup>7</sup>

Membership of Groups related to AR and VR on Facebook grew 74%.<sup>7</sup>

People messaging sellers on Facebook Marketplace about AR and VR listings grew 75% year over year.<sup>7</sup>

74%

growth of membership to Groups related to AR and VR.<sup>7</sup>



# Follow the numbers

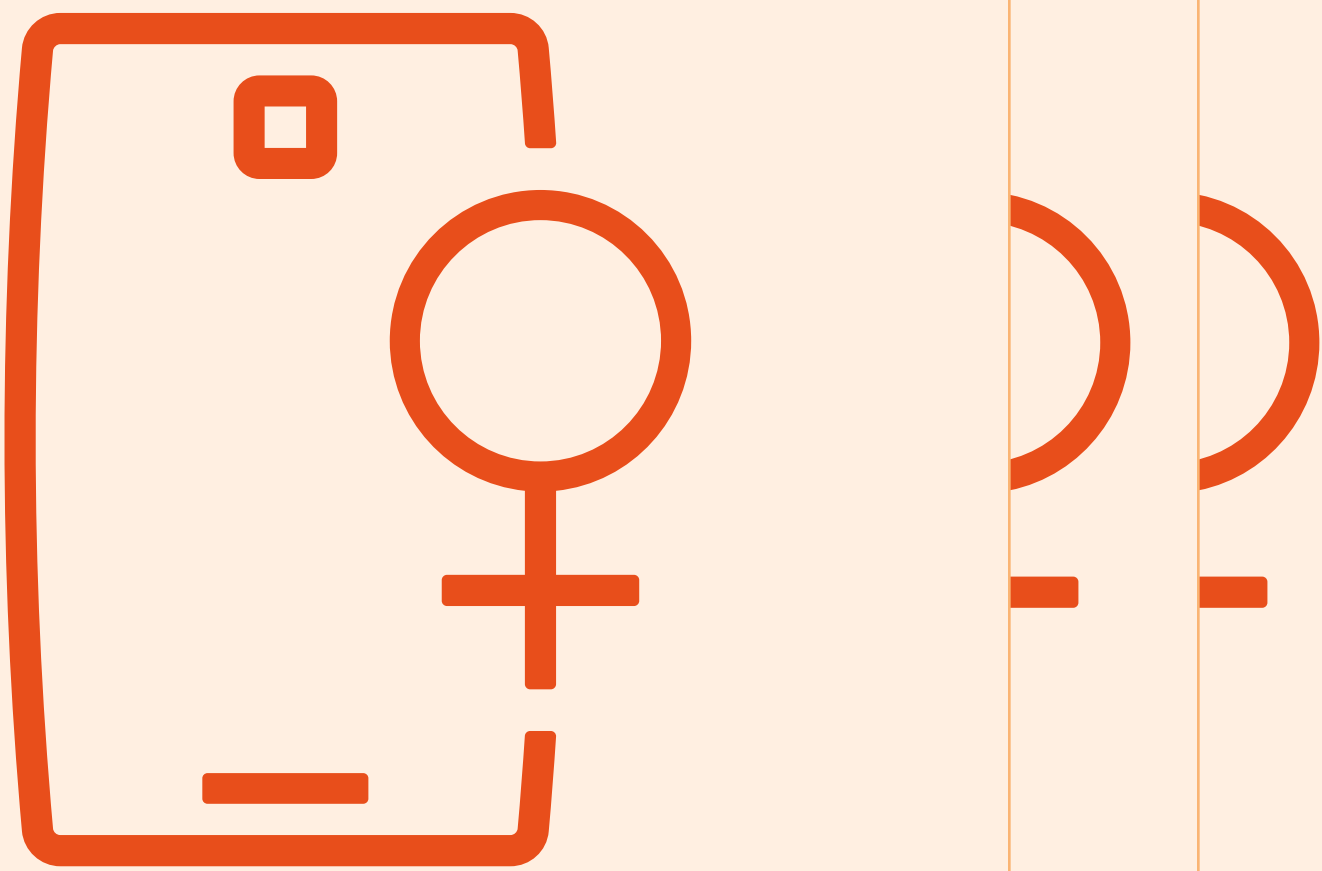
People are already welcoming AR into their lives.



## READY FOR WHAT’S NEXT

Globally, 78% of people say AR is a fun way to interact with brands, and 74% believe AR can even bridge the gap between online and offline.<sup>2</sup>

**78%**  
of people, globally, say AR is a fun way to interact with brands.<sup>2</sup>



## EMBRACING AR FOR ALL

55% of the Spark AR creator community is female.<sup>6</sup>  
  
1B+ people already use AR across our Spark AR platform.<sup>6</sup>

**55%**  
of the Spark AR creator community is female.<sup>6</sup>



# Follow the numbers

Across the globe, the direction is clear.



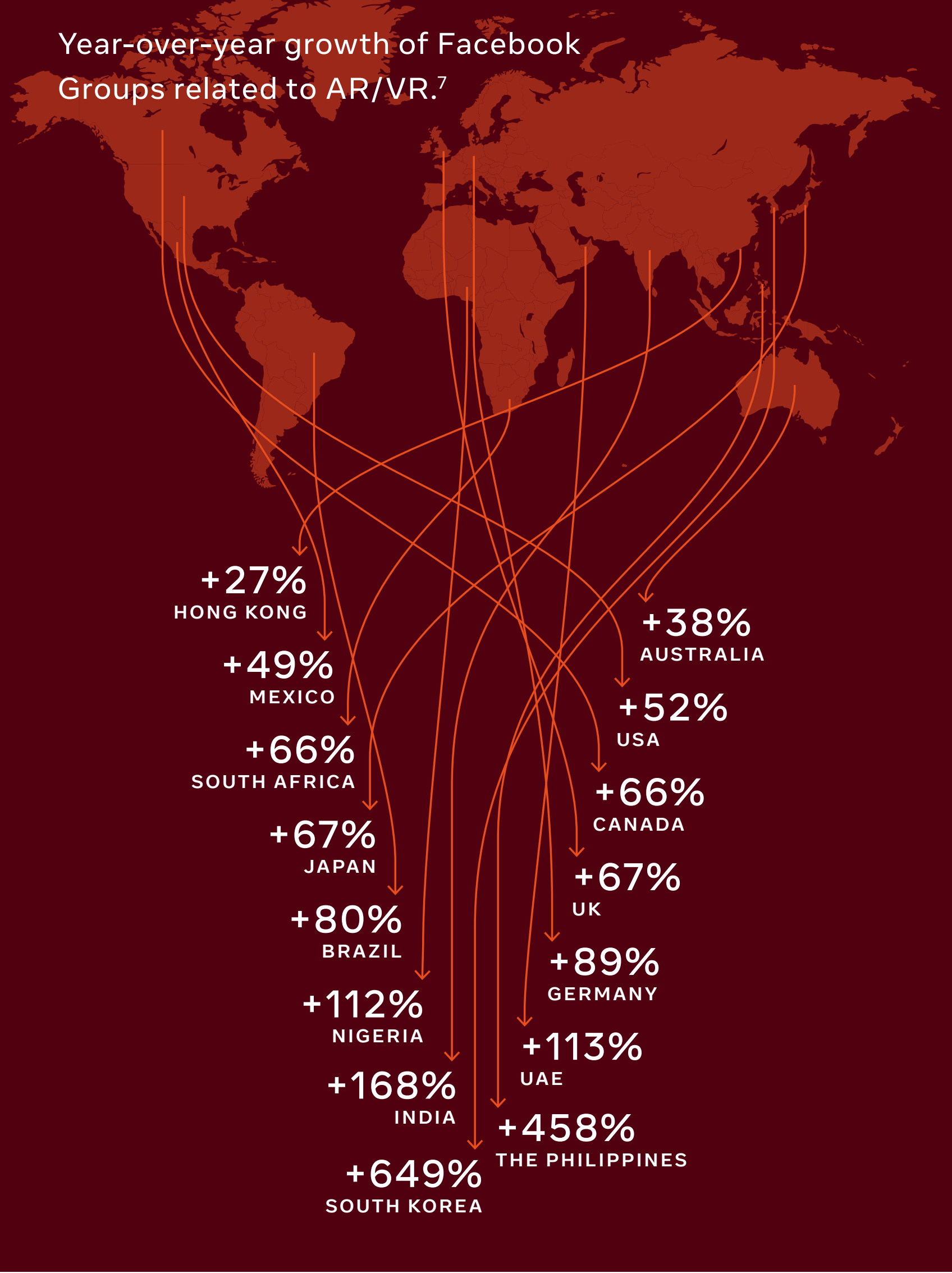
## GROWING GLOBAL INTEREST IN AR AND VR

English-language searches related to AR and VR on Facebook grew nearly twice as fast in emerging markets (with sizable English-speaking populations) than in mature ones.<sup>8</sup>

**2x**  
faster growth  
in search in  
emerging  
markets.<sup>8</sup>

## PEOPLE’S INTEREST IN AR/VR IS GROWING AROUND THE WORLD

Year-over-year growth of Facebook Groups related to AR/VR.<sup>7</sup>





# The real magic happens when technology melts away and redefines presence.

As we move into the era of AR and VR, the opportunities to foster even more meaningful connections across distances and cultures will be greater than ever before. The promise of AR and VR is the promise of breaking barriers and bridging the gap between the physical and digital worlds. And as the technology itself gradually fades into the background, becoming an intrinsic, intuitive part of our lives, the real magic is what will happen in the space between us.

MENTAL BARRIERS



**MIND**  
When devices and distractions are limiting our ability to be truly “there” in every moment, AR and VR can allow us to live eyes up and participate.

PHYSICAL BARRIERS



**DISTANCE**  
When geography separates us from friends, family and co-workers, AR and VR lets us teleport across the globe to be there with those people that matter to us.



**BODY**  
When we are not able to do the things we love because of physical limitations, AR and VR can give us the tools to experience them as if those limitations didn’t exist.

SOCIETAL BARRIERS



**MONEY**  
When we cannot afford to do the things we love or explore new passions, AR and VR can give us access.



**TIME**  
When demands on our time are limiting our ability to connect with others, AR and VR hand us new ways to reach out and participate on our own terms.



**EQUITY**  
When our options are limited by socioeconomic status, race or gender, AR and VR can break barriers, tell stories and open doors.





“In the future, people don’t just want more technology in our products and services; we want technology that is more human.”

**Julie Sweet**  
CEO, Accenture





Imagine  
Imagine  
Imagine  
Imagine

Imagine the  
possibilities




We see a future in which AR and VR will be able to enhance everything from how we promote causes and pursue passions, to how we increase equitable access to tools and interact with brands.

## AR and VR are amazing when they make things better. But they are transformative when they make things possible.

AR and VR will look different depending on what aspect of our lives they interact with. From the silly and entertaining, to the inspiring and downright essential, they will touch many facets of our existence.

Sometimes it will be subtle, like guiding our way down a winding dark road by gradually increasing brightness until we can see more clearly. Other times it will be fantastical, with dreamlike gamescapes and adventures that take our imaginations to new levels.

And AR and VR will increasingly allow us to answer big questions in new ways—like, what does it really feel like to walk in someone else's shoes? What if distance, time, convenience or cost never again stood in the way of pursuing passions? What if any student could get access to the best education in the world, regardless of socioeconomic factors or geographic distance? What if people could truly be immersed in a brand world—from anywhere?



“Imagine wearing a pair of glasses that lets you visit with your parents no matter where you are, tour the Louvre on your lunch break and walk and talk with a friend on the other side of the planet and truly feel that they are at your side.”

**Michael Abrash**  
Vice President, Facebook Reality Labs



# Igniting empathy

At a time when society can feel divisive, VR can help us practice empathy and reflect on the world around us.

## WHAT’S NEW

VR brings stories to life of people who don’t always have a voice of their own. Projects like [We Live Here](#) allow us to experience their reality—letting us walk in their shoes and enabling us to get a deeper understanding of the issues that affect their lives.

Traveling While Black is a cinematic VR [experience](#) that immerses the viewer in the long history of restriction of movement for Black Americans and the creation of safe spaces, bringing greater understanding to issues of equity and systemic racism.

## WHAT’S NEXT

With the help of VR and flotation tanks, people will be able to experience the feeling of zero gravity while surrounded by views of earth from [above](#), simulating what astronauts refer to as the “overview effect”—an immense sense of understanding the frailty of earth and humanity when seeing the planet from space.



“IN PROTEST” brings the social activism of Los Angeles to life.

Igniting empathy  
Igniting empathy  
Igniting empathy  
Igniting empathy

“While smartphones have allowed us to connect so much more easily, AR and VR will create new ways to connect more deeply.”

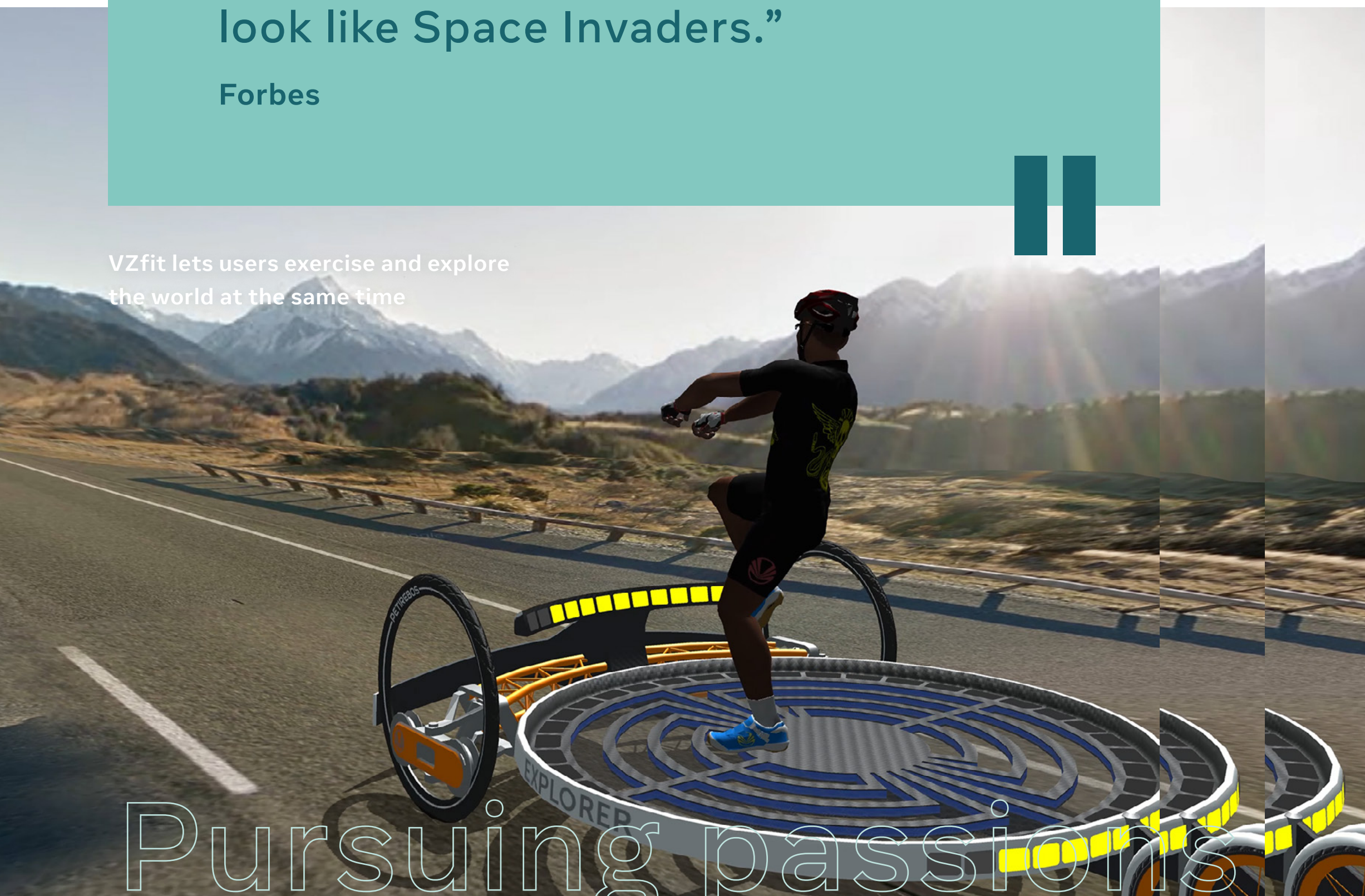
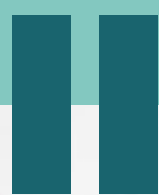
Tomá Beczak  
Facebook IQ



“Over the next few years, in VR,  
we’re going to see things that  
make what is cutting-edge today  
look like Space Invaders.”

Forbes

VZfit lets users exercise and explore  
the world at the same time



Pursuing passions

Pursuing passions

Pursuing passions

Pursuing passions

## Pursuing passions

The things we want to do but are prevented from doing  
by distance, access, time or money can become accessible,  
affordable and available to us through AR and VR.

### WHAT’S NEW

As fitness moves to VR, the  
gym goes to you instead of the  
other way around. Immersive  
experiences like Supernatural  
provide access to high-quality  
exercise from anywhere.

In the world of travel, AR helps  
bringing historical landmarks to  
life and can tell stories of days  
long gone in exciting ways.

Thanks to AR, museum objects  
and antiquities are no longer  
inaccessible because of a ticket  
price or velvet rope. Now you can  
get up close and personal, shift  
your perspective and—thanks to  
the power of social—share the  
experience with your community.

### WHAT’S NEXT

When AR and VR take the next  
steps, we could go from observing  
greatness to participating in it.  
Imagine being able to perform  
together with the London  
Symphony Orchestra and  
experience being at the center of  
the Royal Albert Hall or having  
a personal training session with  
the biggest soccer stars in the  
world, right from the living room.



# Redefining productivity

As AR and VR impact everything from classrooms to operating rooms, the world will become not only more efficient, but more equal. Through AR and VR, we can free ourselves from letting distance or socioeconomic circumstances dictate who has access to the care, services, occupation or education they need.

## WHAT’S NEW

In the medical field, AR and VR can help prevent complications and save lives by enabling doctors to practice procedures before going into the operating room.

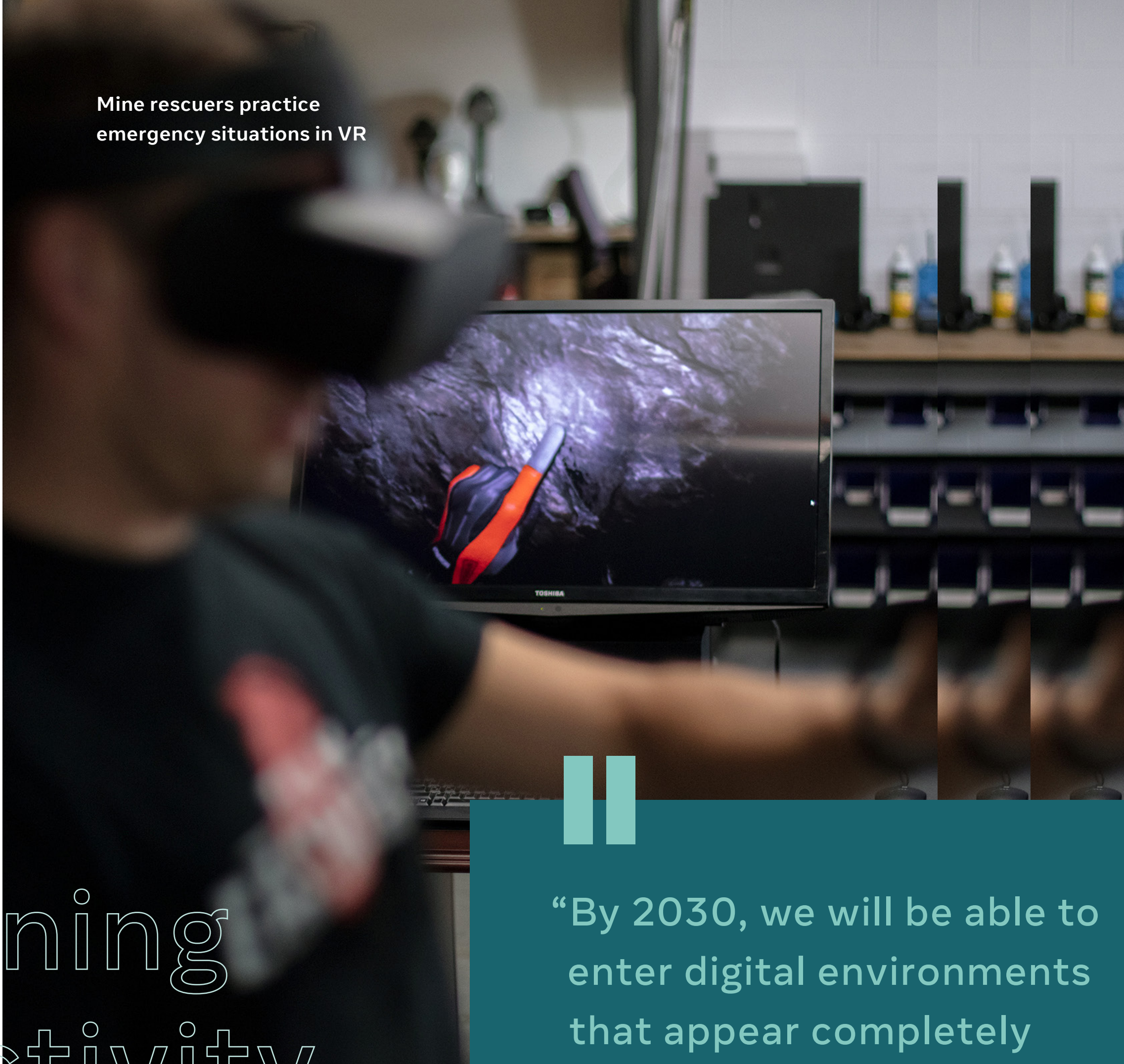
Around the globe, VR is giving unprecedented access to quality education to students in remote regions and with financial barriers.

For HR departments, AR and VR can vastly reduce how long it takes to onboard new employees. In the case of Walmart, the use of immersive VR learning has helped cut training time by 96%.

## WHAT’S NEXT

AR and VR could not only equalize access to world-class education across the globe but also revolutionize how we learn. Imagine future students being able to physically experience life in London in 1943, Tenochtitlan in 1519 or Hangzhou in 1127, and how that would allow them to not only absorb information, but understand the course of human history.

Mine rescuers practice emergency situations in VR



“By 2030, we will be able to enter digital environments that appear completely real to all of our five senses simultaneously.”

Ericsson ConsumerLab





“With AR, we can place furniture right in our living room or try clothing right on our bodies. With VR, we can get closer to a product and experience its benefits across a great distance.”

Eric Oldrin

Director, Creative Shop, Emerging Platforms at Facebook

## Inspiring confidence

AR and VR are not just challenging the idea of the funnel, they are collapsing it. People are having immersive brand experiences, like trying on products digitally and making transactions at the same time. AR and VR are revealing new paths to customer engagement, transparency, brand loyalty and conversion.

### WHAT'S NEW

AR solutions are already bridging the gap between online and offline shopping by allowing customers to try, explore and digitally overlay products into real environments.

With VR, brands can turn their vision into immersive, emotional experiences and tell stories in new ways.

Even when customers and brands are separated, AR can offer creative paths to visualizing scents and flavors.

VR in-store shopping experiences are allowing customers to visualize their purchases in their intended environment,

which can help increase average sales while at the same time decreasing return volumes.

Thanks to AR, people can “try before you buy” even when it comes to the art of choosing a tattoo.

### WHAT'S NEXT

AR and VR could revolutionize how people engage with brands—and how brands engage with people. Imagine being able to meet one-on-one with famous clothing designers, seeing how lipstick bonds to lips by becoming part of the chemical makeup of the product or having a home reimaged by a brilliant creative director.



# Words from the frontier

As the technology is rapidly expanding the possibilities of expression, connection and participation across the globe, we asked some of the most visionary creators and thinkers what they are most excited about when it comes to the future of AR and VR.

Words from the frontier  
Words from the frontier



“I am most excited about an inclusive future for AR/VR. For me this means—on the African continent—we will have access to the technology; our voices will shape its emergence. We will create for good or bad as the rest of the world will; we will not be locked out of the potential and promise of this exponential technology and all it means for the future of the human race.”

**JUDITH OKONKWO**  
Founding Director, AR/VR Africa



“I am looking forward to creating interactive AR public art installations around the world for my followers to enjoy in real time and space. They will also be able to purchase artworks that are placed in special locations around the world. Digital art exhibitions can be organized anywhere I wish. I will create healing art installations in underprivileged areas for the community that needs support for wellness and mental health.”

**KRISTA KIM**  
Artist



Words from  
the frontier

Words  
from the  
frontier  
Words  
from the  
frontier



“VR/AR are great experiential learning tools that can stimulate the imagination and enable new means of collaboration and creation. I look forward to hopefully seeing VR and AR converge into one convertible device.”

**ALTON GLASS**  
Director, Co-Founder of  
GRX Immersive Labs

FACEBOOK IQ

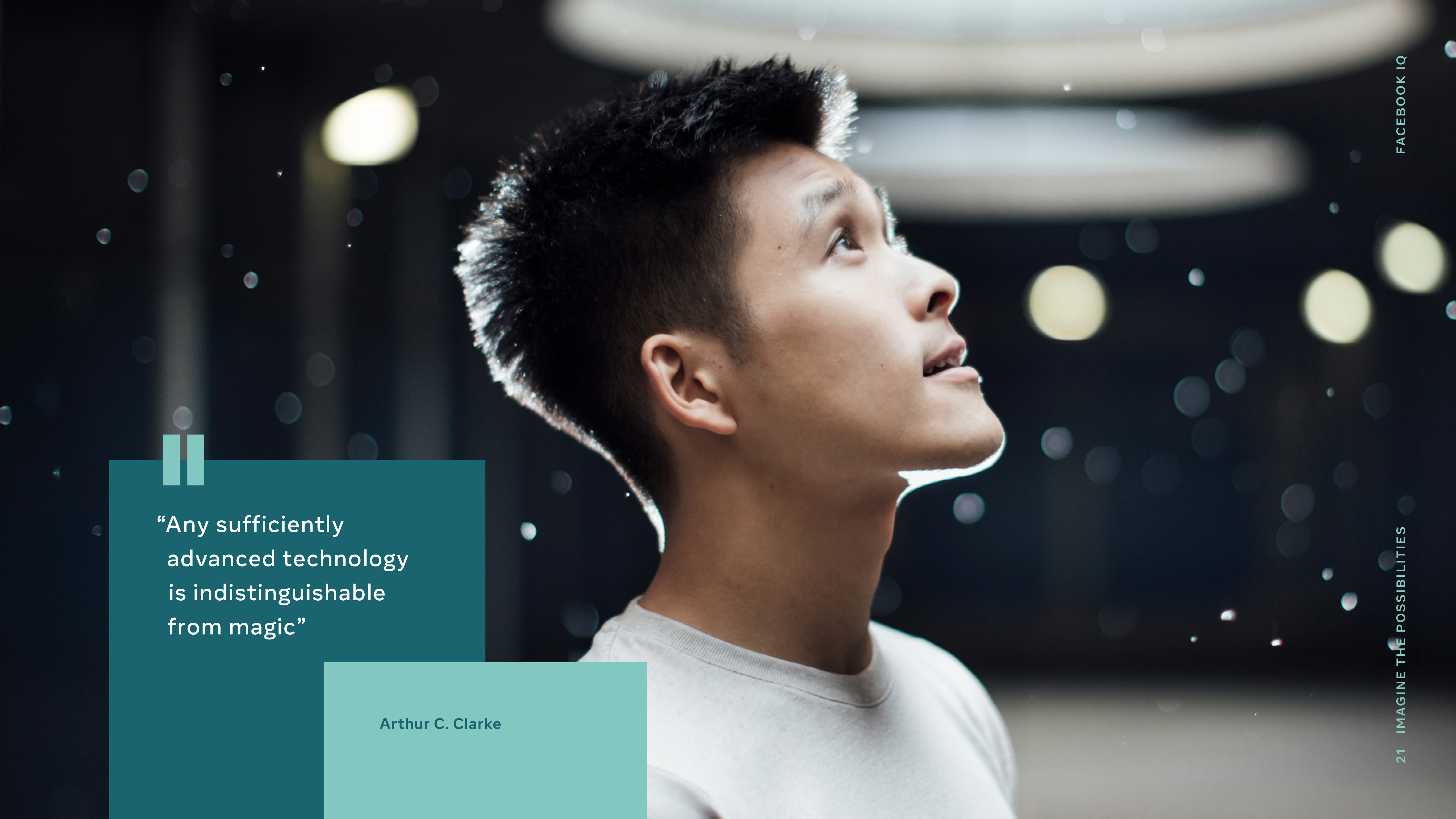
“Ultimately, what we’re trying to do is make something that is meaningful to another human being. We’re trying to make something that is life-changing. That is what great art, what great media, what great things do in your life.”<sup>9</sup>

**CHRIS MILK**  
Co-Founder/CEO, Supernatural



20 IMAGINE THE POSSIBILITIES



A young man with short dark hair is shown in profile, looking upwards towards a dark sky filled with out-of-focus lights (bokeh). He is wearing a light-colored t-shirt. The background is dark with several bright, circular light sources that create a dreamy, futuristic atmosphere.

“Any sufficiently  
advanced technology  
is indistinguishable  
from magic”

Arthur C. Clarke





Let's build  
Let's build  
Let's build  
Let's build  
**Let's build  
the future**



# We've embraced the challenge of building technology that lets people defy distance

At Facebook, our mission is to give people the power to build community and bring the world closer together. And AR and VR might just be the ultimate manifestations of that mission, where we can deepen our connections with the world around us by living eyes up—using devices that have the same perspective that we do.

As we build the next computing platform centered around people, we're committed to driving this innovation forward in a responsible, privacy-centric way. That's why we've crafted a set of principles for responsible innovation that guide all our work in the lab and help ensure we build products that are designed with privacy, safety and security at the forefront.

## FACEBOOK REALITY LABS: RESPONSIBLE INNOVATION PRINCIPLES

### 1 Never surprise people

See how we put these principles into action [here](#).

We are transparent about how our products work and the data they collect. We communicate clearly and candidly so people can understand the trade-offs we considered and make informed decisions about whether and how to use our products

### 2 Provide controls that matter

We provide controls—where and when they matter—to put people in charge of their experience.

### 3 Consider everyone

We build products that are inclusive of our diverse community and design hardware that isn't one-size-fits-all.

### 4 Put people first

When deciding what's right for our business, the individual and the community, we prioritize what's best for most people in the community.



# Not everything will work. But the things that do will change the world.

Some of the groundbreaking technologies, solutions and use cases that will shape the next decade will come from large-scale corporations and brands with global reach.

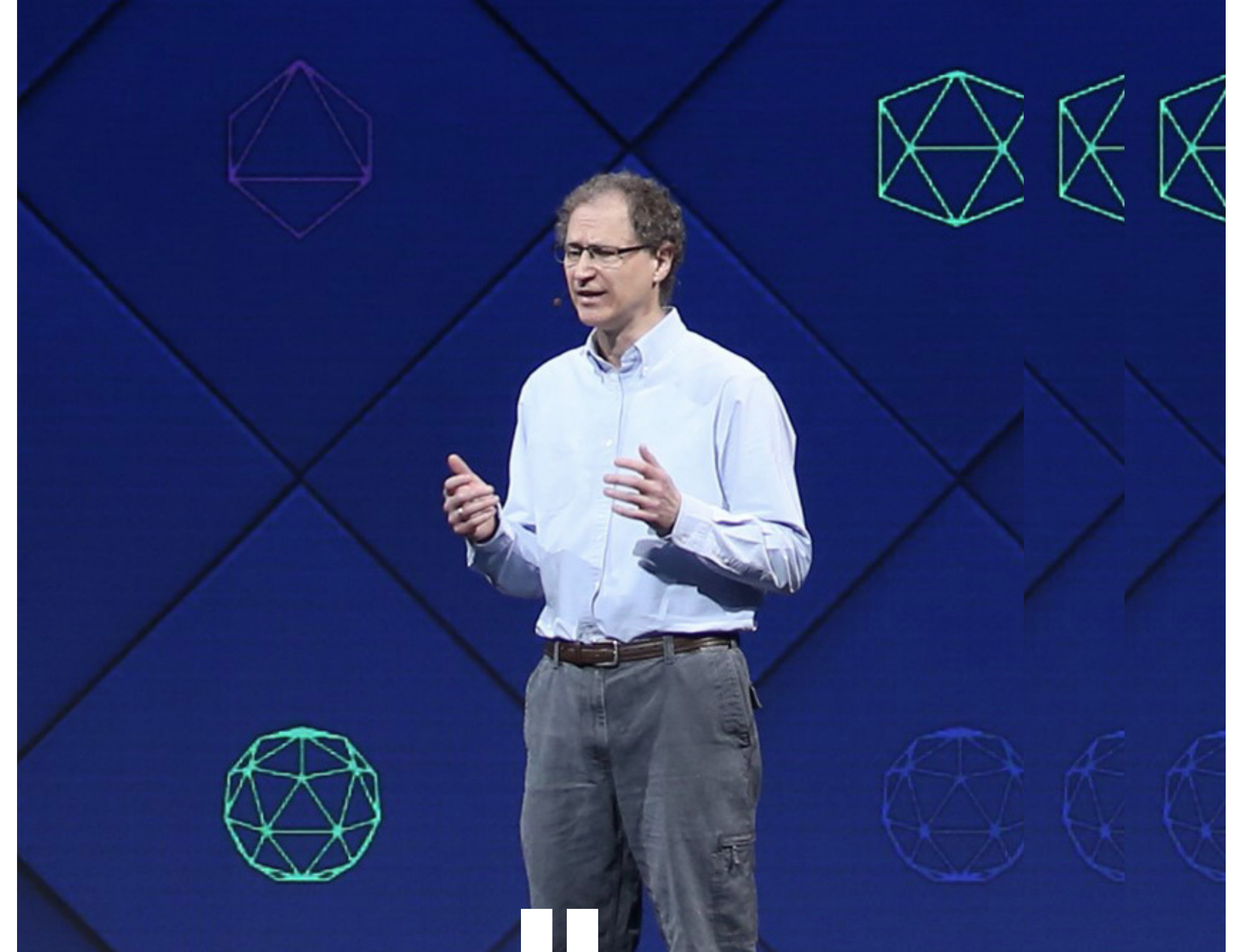
Many more will sprout from ingenious small, independent businesses locally and regionally. Some will be born out of specific industrial needs and opportunities, whereas others will be spawned from innovation and creativity in entertainment, art and advertising.

What this all boils down to is that no one business or brand will be able to build the future alone. It will take partnership, collaboration and exchange of ideas across verticals and borders, ideals and ideologies.

Much of the technology we've discussed doesn't exist yet (see

what we're working on). Even so, there are many ways brands are already exploring how to create value for themselves and their customers. By embracing emerging technologies, these businesses are setting themselves up to greet the future on their own terms.

Not everything  
will work Not  
everything  
will work Not



“The future doesn’t just happen. It is built... by people.”

**Michael Abrash**

VP, Chief Scientist, Facebook Reality Labs



# Get started on your journey by offering time, transparency and entertainment

AMONG THOSE  
SURVEYED GLOBALLY

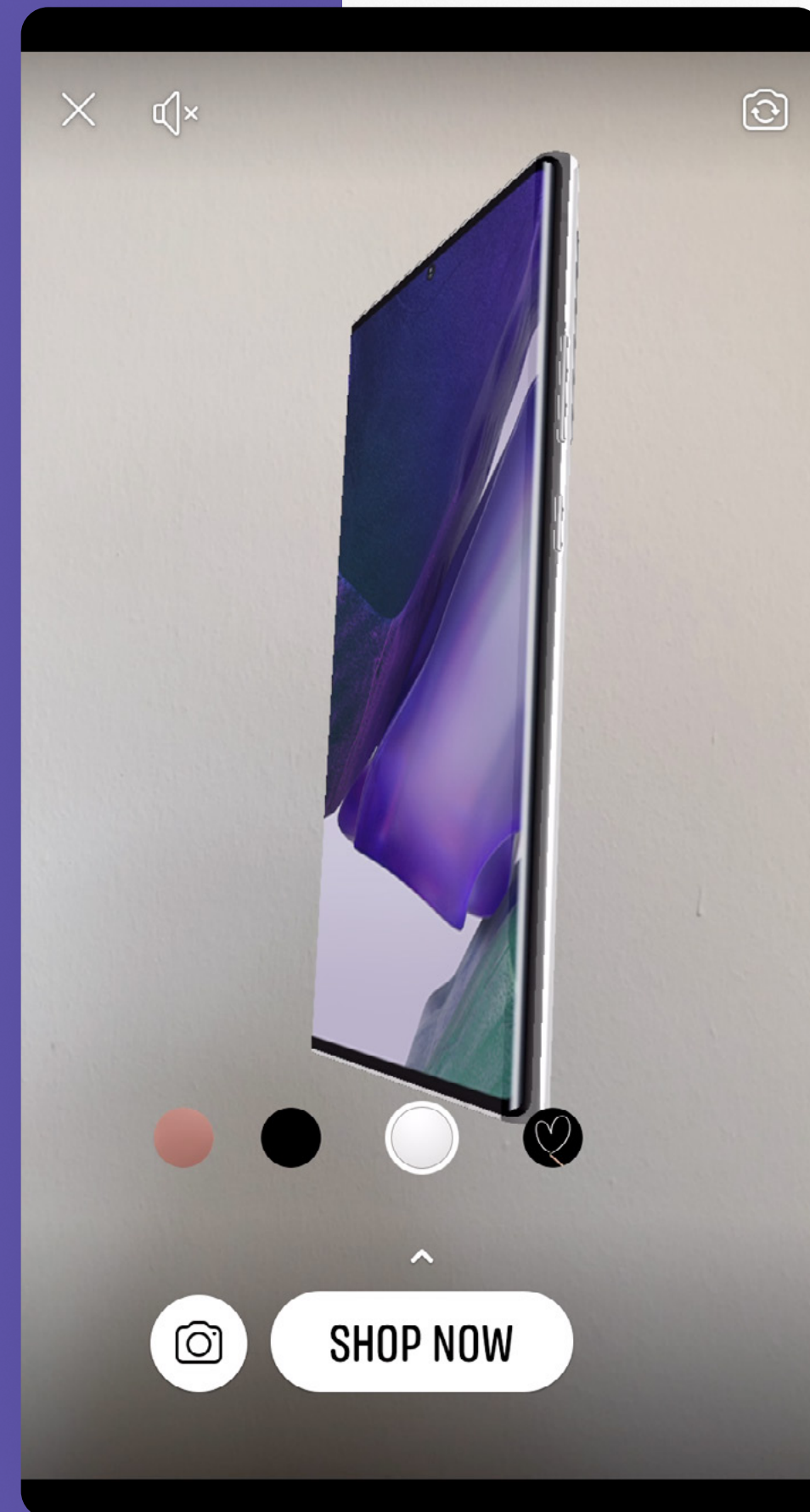
## 90%

are actively looking for ways to simplify their lives<sup>2</sup>

## 74%

say AR/VR can bridge the gap between online and offline<sup>2</sup>

By making your inventory available in AR and letting your customers explore it in their own environment, you are giving people both the gift of time and transparency—making their lives easier and increasing confidence in your brand.



AMONG THOSE  
SURVEYED GLOBALLY

## 78%

consider AR a fun way to interact with brands<sup>2</sup>

## 86%

are open to brand-led features in AR<sup>2</sup>

Creating immersive world or people filters will be an appreciated gift to your customers and can help you build deeper connections.





# Let's greet the future together



## DISCOVER

- Explore how other businesses are successfully using AR and VR to transform their strategy.
- Educate yourself to be able to decide whether AR or VR represents the best path for your business.
- Gain learnings for how your business can add the most value to people's lives with AR and VR.

## TRANSFORM

- Organize and empower your team so it's clear who's driving AR and VR innovation and how it ladders up to your KPIs.
- Use the power of your own community to inform, inspire and influence your AR and VR strategy.
- Educate your organization on how AR and VR will impact your industry.

## EXPERIMENT

- Start small and give yourself the time to experiment. Let concepting take the twists and turns it needs as you find the right way to express your brand.
- Build around responsible innovation principles from the start.
- Find a great SparkAR partner or Oculus developer to unlock the AR/VR ecosystem.



Your go-to source to help you build future-forward strategies with foresight at the intersection of people and social technology.

The future doesn't just happen. It's built. It's built by leaders who have the courage to envision a world beyond what's expected.

By those who confidently say, "let's go" instead of "let's see."

It determines who the disruptors are... and who ends up being disrupted.

At Facebook IQ, our deep foresight and resources embolden leaders to think bigger about the future and make daring decisions that drive change for

their businesses, industries, communities and beyond.

Our work is powered by the perspectives of people who are literally building the future, by the trends gaining momentum across our platforms and by our unique understanding of what drives 3 billion people and 200 million businesses around the world.<sup>1</sup>

Join us and let's shape the future together.



About Facebook IQ  
About Facebook IQ  
About Facebook IQ



## SOURCES

1. Facebook earnings, Jan 2021.
2. “Emerging Trends Research” (Facebook-commissioned survey of 12,500 online people ages 18–64 in AR, AU, BR, CO, GB, ID, IN, MX, NG, PH, SA, TH, US and VN) by Ipsos, Sep 2020. N=1,000 for all markets except AU, GB and US (where N=500).
3. “Industry Micro-Shifts Monthly Tracker” by Kantar Profiles (Facebook-commissioned online survey of 96,938 adults across AU, BR, CA, DE, ES, FR, HK, ID, IN, IT, JP, KR, MX, TW, UK, US), Oct–Nov 2020. Unless otherwise specified, data is a cross-country average across all 16 markets.
4. “Worldwide Spending on Augmented and Virtual Reality Forecast” by IDC, Nov 2020.
5. “Augmented or Virtual Reality” by Bain, Sep 2020.
6. SparkAR, Sep 2020.
7. Facebook data, global, based on English and Non-English language keywords, Jan 2019–Dec 2020. Shopper interest defined as unique users who reached out to a seller of AR and VR products on Facebook Marketplace.
8. Facebook data, based on English-language keywords, Jan 2019–Dec 2020. Emerging markets (AE, IN, KE, NG, PH, ZA) and mature markets (AU, CA, GB, HK, SG, US) defined according to MSCI Market Classification, Jun 2020.
9. The Verge, April 2021.

## RELEVANT RESOURCES

Learn more: [Facebook IQ Article](#), [Executive Briefing](#)

Get inspired: [Oculus for Good](#), [VR films](#), [VR games and experiences](#), [Spark AR creator gallery](#), [AR ads](#)

Stay up to date: [Facebook IQ](#), [Oculus for Business](#), [SparkAR newsletter](#), [SparkAR](#)

Try a demo: [Schedule 1:1](#), [Demo activities](#)

Find a partner: [SparkAR](#)



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