

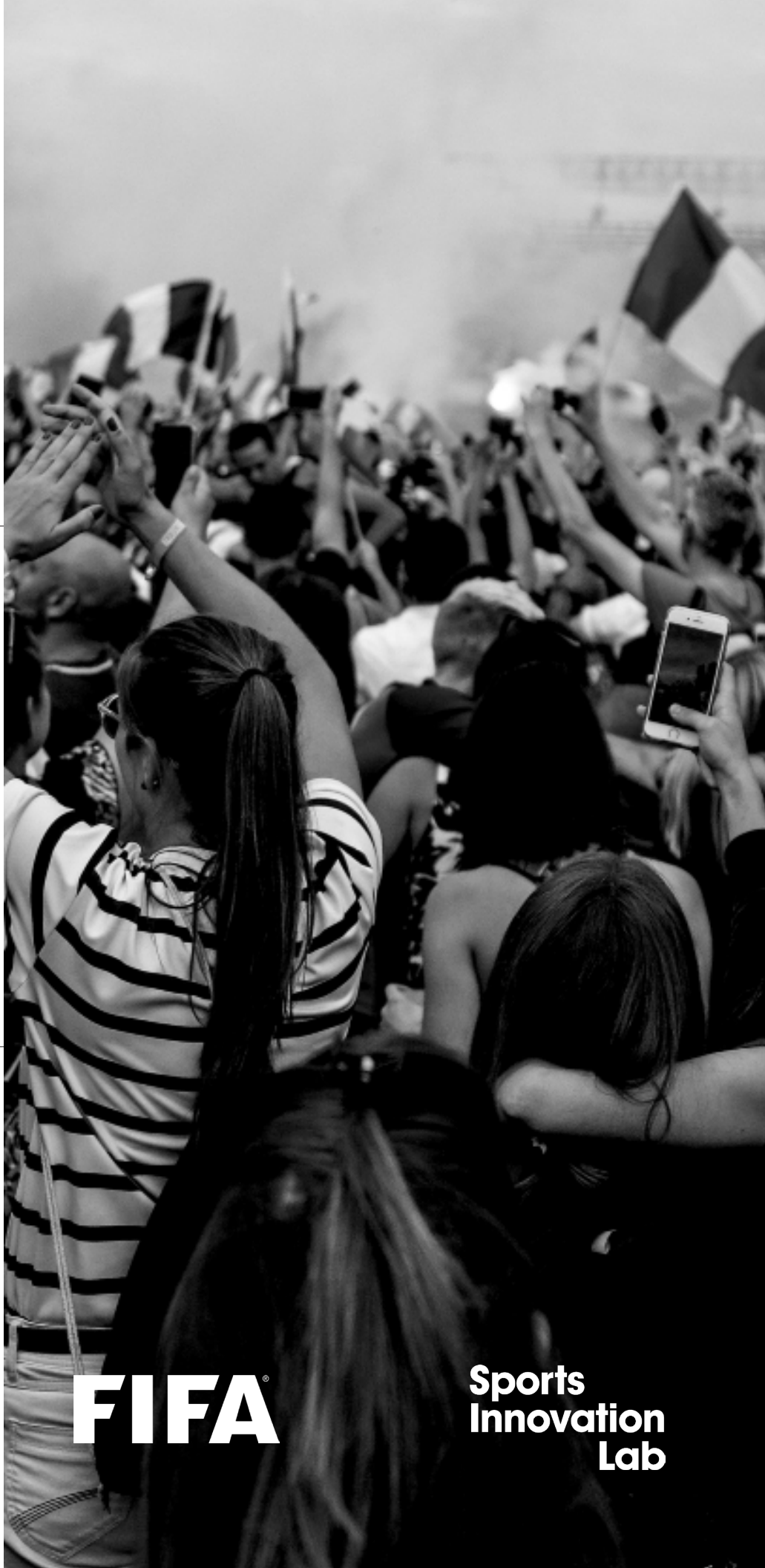
THE FUTURE, IN YOUR HANDS

INNOVATION OPPORTUNITIES ON THE ROAD TO 2026

OPPORTUNITY AT HAND
SMARTPHONE INNOVATION ON DISPLAY
GLOBAL FOOTBALL EVENTS

SMARTPHONES, STILL A FUTURE TECHNOLOGY
FOCUSING ON FAN BEHAVIORS
BRINGING FANS TOGETHER

CONNECTED EXPERIENCES
SMART STADIUM
INTO THE METAVERSE



FIFA

**Sports
Innovation
Lab**



OPPORTUNITY AT HAND



Angela Ruggiero

ANGELA RUGGIERO
CEO & CO-FOUNDER, SPORTS INNOVATION LAB

The sports industry is obsessed with the future. Seemingly every week, a new video, a new report, or a new conference emerges suggesting what our industry should expect in the next decade. It's no surprise that in an industry defined by competition, everyone is seeking an edge in the form of being early to know what technology to adopt.

But there is a risk in seeking the wisdom of fortune-tellers. Sometimes, when searching for a glimpse into the future, you end up hearing exactly what you wanted to hear, which simply pushes you in the direction you were headed all along. Whether talking about blockchain technology, esports, sports betting, or virtual reality—pick a buzzword du jour—many futurist reports, in our opinion, do more to confuse than clarify.

This report is decidedly different. This report is as much about the past as it is about the future. This report looks carefully at the data on global technology trends and makes a less audacious but more focused claim.

This report is about smartphones.

There's nothing exciting or buzzworthy about saying the future technology to pay the most attention to going into the FIFA World Cup 2026™ is the smartphone. We've had smartphones for a decade. They are not new, or sexy, or as buzzy in the industry as some other technologies.

But the truth is, smartphones are the technology of the now, and of the future. Because of the combination of a camera, a touchscreen, and network capability, the smartphone remains a powerful device with tremendous, as of yet untapped potential for sports. Smartphones have the power to bring the fans in-venue and at-home closer together. **Technology innovation moves in an arc, not a straight line, and all the research and data we've looked at suggests that the smartphone will continue to play a major role in innovation in sports over the next decade.**

So as you read, resist the temptation of the soothsayers who are more interested in your excitement than your future. Remember that though it may seem a long way away, the future is literally, and figuratively in your hand if you have the focus and discipline to remember to look.

SMARTPHONE INNOVATION: ON DISPLAY TOWARDS 2026

WITH A SMARTPHONE, THE WORLD IS LITERALLY AT YOUR FINGERTIPS

As Canada, Mexico and the United States prepare for the FIFA World Cup 2026™, the sports industry continues to rapidly evolve. The single biggest trend we have identified through our research at the Sports Innovation Lab is what we call the Fluid Fan, a kind of sports fan that is dynamic, ever-changing, discovering new sports to support, and new ways to engage with them.

The single biggest technological innovation that has ignited the growth of Fluid Fandom is the smartphone. The smartphone, through its design, is a device that compels multitasking and is predicated by ubiquitous connectivity. It's become a cliché, but with smartphones, the world is literally at people's fingertips.

Smartphones are also devices that emphasize the concept of convergence. With smartphones, traditionally separate media forms like radio, television, print, or games are all coming together in new and exciting ways. What's more, smartphones are also bridging gaps of geographical distance, connecting people through video, virtual experience, and telephony, whether they are at a sports venue, at home or on the go.



While innovation happens every day in sports, there are moments in the continuous sports calendar when our industry takes a leap forward. These moments are more often than not at the biggest events on our calendar, our sports mega-events. Massive global events like the FIFA World Cup™ are showcases for technological innovation.

This report makes the case that at the FIFA World Cup 2026™, smartphones will still be a dominant platform for innovation. The argument that follows covers:

- **Mega-Events are innovation showcases**
- **Smartphone technology is still developing in the build-up to 2026**
- **Smartphones will bridge the gap between the venue and home audiences**
- **Major smartphone innovation trends to watch for in 2026**

Smartphones will remain a dominant global platform for many years to come, and this report will outline what to look for with smartphone fan experiences at the next FIFA World Cup™ editions in 2022, 2023 and 2026.

UNRIVALED GLOBAL OPPORTUNITIES FOR INNOVATION AT SCALE

MEGA-EVENTS

FIFA WORLD CUP
QATAR 2022™

FIFA WOMEN'S WORLD CUP
AUSTRALIA/NEW ZEALAND
2023™

FIFA WORLD CUP 2026™



Image: Supreme Committee for Delivery & Legacy via Getty Images

KEY FACTS:

FIFA WORLD CUP RUSSIA 2018™:

- Unique reach of over 3.5 Billion
- over 2.4 billion viewers watched at least for 30 consecutive minutes;
- USA: Over 126 million unique viewers (20% increase vs. 2014 despite the US team not having qualified)

FIFA WOMEN'S WORLD CUP FRANCE 2019™:

- A global audience of over 1B
- biggest Women's World Cup in history broadcast in over 200 territories
- Over 15m average live match audience (120% increase on the previous tournament)

FIFA WORLD CUP QATAR 2022™:

- FIFA World Cup Qatar 2022™ will see the first edition of the mega-event to be celebrated in the Middle East and Arab world. As the most compact version of a FIFA World Cup™ in modern times (with the longest distance between stadiums being 75km) the event will showcase unique innovative fan experiences and services.

FIFA WOMEN'S WORLD CUP AUSTRALIA/NEW ZEALAND 2023™:

- FIFA Women's World Cup 2023™ in Australia and New Zealand will see the biggest edition ever with 32 teams participating (24 teams in France).

FIFA WORLD CUP 2026™:

- FIFA World Cup 2026™ in Canada, Mexico and USA will be the biggest edition ever and will see 48 nations competing for the trophy via 80 matches (FIFA World Cup 2022 with 32 nations).

UNRIVALED GLOBAL OPPORTUNITIES FOR INNOVATION AT SCALE

MORE FIFA TOURNAMENTS:

- FIFA U-20 World Cup™
- FIFA U-20 Women's World Cup™
- FIFA U-17 World Cup™
- FIFA U-17 Women's World Cup™
- FIFA Beach Soccer World Cup
- FIFA Futsal World Cup™
- Blue Stars/FIFA Youth Cup™



Image: AllsportUK/Getty Images

FIFAE

FIFA's efootball events are being played on EA SPORTS FIFA. Competitors will have the chance to represent their club in the FIFAE Club Series, compete for national pride and for their country in the FIFAE Nations Series or create their own legacy in the EA SPORTS FIFA Global Series on the Road to the FIFAE World Cup™.



Image: Eamonn McCormack - FIFA/FIFA via Getty Images

MEGA EVENTS: SHOWCASES FOR INNOVATION

WHAT IS A MEGA-EVENT?

While the drum of modern sports beats on with continuous events around the world, day after day, every so often there are those sports moments that transcend the ordinary and serve as major global phenomena. The FIFA World Cups, the Olympic games, the Super Bowl, these massive events attract huge global audiences, both on media and live at the event. They are so unlike other sporting events in scale that they require their own name: mega-events.

To call sports mega-events “big” is an understatement. Mega-events assume a scale that dwarfs the ordinary, and that sets them so far apart from other events that they require their own classification. Sports mega-events have been the focus of significant contemporary research, largely focused on how to classify them.¹

For the purposes of this report, we turn to Martin Müller (2015) who identifies mega-events across four primary axes:²

- 1. They attract tourism to the host location**
- 2. They attain widescale media viewership**
- 3. They incur significant cost to produce**
- 4. They have an impact on the community and environment hosting**



Image: Matt Cardy/Getty Images

EXAMPLES OF INNOVATIONS AT SPORTS MEGA-EVENTS

SUMMER OLYMPIC GAMES - BERLIN

1936



At the 1936 Olympic Games in Berlin, TV broadcasts were developed with the games being presented in salons and viewing rooms across the city.

FIFA WORLD CUP™ - ENGLAND

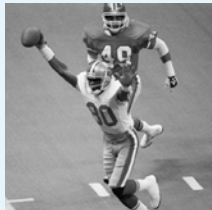
1966



Building on the growth of national television broadcasts, the FIFA World Cup 1966™ was the first to be broadcast via satellite internationally.

SUPER BOWL XXXIV - UNITED STATES

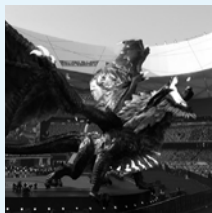
2000



High Definition is a growing international standard for televisual broadcast, but it has not been around that long. The 2000 Super Bowl was the first to be internationally broadcast in HD.

LEAGUE OF LEGENDS WORLD CHAMPIONSHIPS - CHINA

2017



As the opening ceremony for the 2017 LoL World Championships concluded in Beijing, an Augmented Reality Dragon flew across the stadium sky, landing on the stage in front of tens of thousands in attendance, and with millions watching at home. It was a technological feat of massive proportions.

SUPER BOWL LIV - UNITED STATES

2020



The world is waiting breathlessly for a fully deployed 5th Generation of wireless telecommunications, but at the 2020 Super Bowl, Verizon showcased their 5G technology to fans in attendance.

SMARTPHONES: STILL A FUTURE TECHNOLOGY

THE SMARTPHONE IS STILL GROWING AS AN IMPORTANT GLOBAL DEVICE

When we begin to imagine what kinds of technologies will be on display in the lead to 2026 in North America, we must take into account a few key considerations:

- **What are the current technological trends and what do they suggest for the next decade?**

Ubiquitous connectivity is a persistent trend in sports technology. A once traditional business is finding that all four of its primary revenue pillars— ticketed attendance, media rights, sponsorship and advertising, and merchandise— are all actively being disrupted by the fact that their consumers are constantly on their connected devices. Fans are buying tickets on a smartphone, watching matches via OTT, being served better targeted advertising on personal devices, and buying merchandise and even digital commodities on their phones.



Image: Mark Runnacles/Getty Images

- **What kinds of technology companies have a strong foothold in North America?**

Smartphone technology has many corporate stakeholders. Three of the five largest telecommunications companies in the world are in the United States— AT&T, Verizon Communications, and Comcast. Apple remains one of the primary movers when it comes to smartphone development, and chip manufacturer Qualcomm still holds a strong positioning. Additionally, corporations focused on cloud technology and network infrastructure, like Google and Cisco, will play an important role. While there is tremendous global innovation around wireless technology, there is no doubt that when the growth of 5G takes hold it will have a tremendo impact on the North American wireless economy.

- **What kinds of experiences do we expect fans to need in the near future?**

Increasingly, sports fans expect to be able to do most of their sports behaviors with a smartphone. Whether it's buying tickets, buying concessions, buying merchandise, watching a match, betting, talking with other fans, playing a game—everything a fan wants to do with sports, they want to be able to do it with their smartphone.

It's clear from the answers to each of these questions, that the present, and the future, of sports technology is tied to the continued importance of smartphones to the live sports ecosystem.

WE ARE STILL EARLY ON SMARTPHONES

The first iPhone was introduced in 2007, now more than a decade ago, and at the pace of technological growth it's not surprising that smartphones, for many people, seem like old technology. The truth is, we are still early in not only the global penetration of smartphones, but also in the optimization of tremendously powerful, network-enabled, small computers that feature both screens and cameras and fit in our pockets.

GLOBAL SMARTPHONE USE IS STILL GROWING

- In Sub-Saharan Africa, the percent of people connected via a smartphone will grow from 44% to 65% between 2019 and 2025.
- Smartphone penetration in China is projected to grow from 53% to 61% by 2023
- In 2018, smartphones accounted for 66 percent of all mobile connections in Latin America and the share is expected to increase to 79 percent by 2025.

THERE'S STILL TREMENDOUS POTENTIAL WITH SMARTPHONES

Smartphone technology has experienced hyper-accelerated growth over the past decade, but in reality, designers and developers are still early in unlocking the potential with these powerful devices. The three core design affordances of the smartphone—the touchscreen, the camera, and the ubiquitous networking—mean that there's still opportunities to create more experiences with smartphones that people have simply never seen before. From AR statistical overlays, to interactive video, to digital luxury suites, to improved video teleconferencing, by kick-off of the FIFA World Cup 2026™, we can expect to see tremendous smartphone innovation on display.

5G WILL UNLEASH UNTAPPED POTENTIAL

There is a lot of hype about how 5G will impact smartphones, and also still many questions about what it could mean for fans. The reality is that 5G, as the logical evolution of cellular technology, will make everything faster and more efficient. Those are two hurdles that for experience designers unlock a lot of potential that may have been stymied by the limitations of technology. 5G will not be a revolution, but it will be a major step forward that will allow designers to implement faster video, faster connections, cloud processing, and more. In 2026, with a more mature and distributed 5G infrastructure (as well as future next generation networks), smartphones will be able to power even more fan behaviors.



If you think about global events, the number of people who can attend live is so small compared to the universe that you can reach through digital media, that we are really working for everyone else... and that is going to accelerate.³

RICARDO FORT
HEAD OF GLOBAL PARTNERSHIPS - COCA-COLA COMPANY

BRINGING FANS AT HOME AND AT THE VENUE CLOSER TOGETHER

THE SMARTPHONE CAN UNITE GEOGRAPHICALLY DIVIDED AUDIENCES

Because smartphones are a technology rooted in telephony and wireless communications, they are devices with potential to connect people. The recent global pandemic that pulled fans out of sports stadiums only reinforced the need to shorten the distance between fans in different environments, harnessing the power of togetherness regardless of geography.

As we've shown, more of the world will have smartphones in 2026. An increasing majority of attendees at sports venues will come with their smartphone in hand, and they will expect to be able to use it. We believe that going into 2026, even greater progress will be made connecting fans through smartphone technology. This will take shape in a few ways:

- **Co-Watching**

The sports industry has been thrust into development of technologies that empower fans to feel together, even when they are not. It's called "co-watching" and the technology is functional today, but nascent. There are still synchronization challenges, and even when the live video is synchronized, many of the social features still feel lacking.

By 2026, we expect even richer experiences that harness the social nature of sports spectators. 5G speeds and bandwidth will enable more effective co-watching, and the touchscreen will enable more creative interactive design that will allow fans to compete with one another, to cheer, to scream, and heckle, all in new ways.



The evolution and proliferation of smartphones, its capabilities and mobile connectivity are constantly pushing the boundaries of the involvement with the beautiful game, at the stadium, but also from anywhere at any given time in the world. Based on changing consumption patterns and motivations fans will crave for the next generation of virtually connected, inclusive, immersive and interactive experiences ignited by the power of the collaborative perception of the emotional moments, the tribal affiliation and the cultural significance of the FIFA World Cup™ and its narratives.

BENJAMIN STOLL
DIRECTOR OF STRATEGIC ALLIANCES & INNOVATION - FIFA

- **Interactivity**

One of the fundamental features of the smartphone is that it responds to user input via the touchscreen. The smartphone is inherently interactive. The sports industry is still only beginning to grapple with the potential of interactive media by way of the smartphone. For a sports industry that has for a century been built on linear, lean-back media—sports on TV—the idea of allowing fans to do something while they watch is changing the game.

We expect that interactivity will play a fundamental role in how fans at the venue and at home connect. Whether it is sharing photos, sharing video, playing a game, betting and wagering, there will be more ways for fans to interact and connect regardless of where they are by using their smartphones.



Image: Alex Caparros - FIFA/FIFA via Getty Images



There's always been a virtual fan in the fact that people are sitting at home watching, but now that virtual fan thinks in terms of purchasing a ticket, and wanting a [virtual] seat in the venue. What will that look like? That's going to be a whole new revenue stream even when we have fans back in the stands live.⁴

KATE JOHNSON

DIRECTOR OF GLOBAL MARKETING, PARTNERSHIP, SPORTS MEDIA - GOOGLE

INTO THE METaverse

TOURING VIRTUAL WORLDS WITH SMARTPHONES

There remains another broader concept that connects to the concept of bridging the gap between audiences at home and at venues: the metaverse. Seemingly ripped from the pages of science fiction novels, the metaverse is a high-minded, long term goal for many of the technology companies who are developing mixed reality and interactive media technologies: from Oculus, to Microsoft, to Epic Games and many more.

The metaverse, in the broadest sense, is the concept of a persistent, synchronous, and immersive digital world. It is persistent in that it never ends or resets—it is ongoing. It is synchronous in that all users experience the world at the same time, in real-time. And it is immersive, meaning not that users feel like they are “there” but in the sense that it occupies a users attention and focus.⁵

Perhaps the single greatest successful example of an attempt at a metaverse with broad appeal is Epic Games Fortnite. The wildly popular video game, on the surface, is in the genre of a Battle Royale shooting game. But when you dig deeper, and look closely at the developments Epic Games have made and how users engage with the world of Fortnite, you quickly see how it is so much more than just a video game.

- Fortnite has been hosting live concerts that attract millions of simultaneous viewers.

- Fortnite has hosted live movie viewing parties, where users view films on digital screens inside the persistent world of the game.

- Fortnite has become a digital “hang-out” destination for young people, not unlike a skate park or mall from years past.⁶



THE METAVERSE AND SPORTS

While we are a long ways away from a fully-realized metaverse befitting the imagination of science fiction, there are many lessons that the sports industry might want to take from the push for persistent worlds in other entertainment sectors. For younger sports fans, digital and virtual worlds are an important part of their social lives. Whether it is in games like *Fortnite*, *Minecraft*, and *Roblox*, or in digital communities on forums like Reddit or Wattpad, younger audiences, many of whom are also sports fans, want to connect with each other online. They also expect to be able to do more with those online experiences. They understand that digital technologies are free from many of the constraints of the physical world, so whether they are jumping and dancing in low gravity, or assuming new and different personas these young fans expect more.

Many digital communities are also being built without the need for a virtual world. A great example of this is the community built around EA SPORTS *FIFA* games. Streamers, YouTubers, custom apps and websites—there is a productive fan community that has developed in digital spaces related to the game and its competitive efootball landscape. Finally, fans of digital communities expect concurrence with their experiences. The notion of “liveness” and “togetherness” is essential to their social digital lives.

Specifically, sports is still driven by the “liveness” of events. There is simply no substitute for experiencing the action of sports at the moment. For many reasons, but for this one specifically, it is imperative that the sports industry pushes hard to capture the attention of more fans who want to live some of their life and play in the metaverse.



When I was in high school I would hang out in the mall for hours with friends. Now, kids are riding on blue rainbows with panda suits through the metaverse hanging out with their friends. This is the future and if that doesn't excite you then you just might miss the opportunity to authentically connect with these communities while they are still growing. Now is the time to get engaged.

SEBASTIAN ODDO
SENIOR VICE PRESIDENT, INNOVATION OCTAGON

**IN NOVEMBER OF 2020,
INTERNATIONAL RECORDING ARTIST
LIL NAS X PERFORMED FOUR LIVE
CONCERTS OVER TWO DAYS IN THE
GAME ROBLOX. IT WAS ATTENDED
MORE THAN 33 MILLION TIMES.**



Image: Roblox

SMARTPHONE INNOVATIONS TO EXPECT ON THE ROAD TO 2026

AUGMENTED REALITY INTEGRATIONS

Augmented reality is a toolkit that leverages all the affordances of smartphones to create new experiences for fans. There have already been some high profile experiments using AR to display athlete data and game statistics that use GPS tracking for overlays, and AR experiences that have created exciting games for fans to play. As 5G becomes a reality, the potential to make the live experience more mediated through a smartphone is huge.

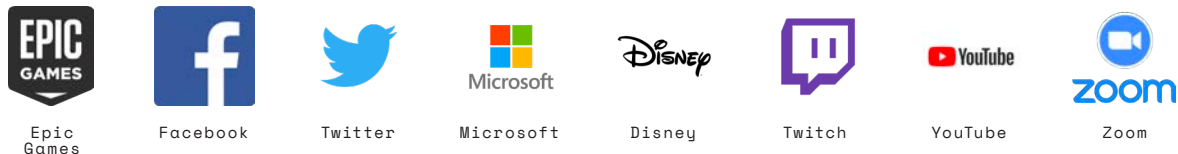
COMPANIES TO WATCH:



SOCIAL & CO-WATCHING EXPERIENCES

Being social is an essential part of the sports fan experience, and going to a venue will always be a limited opportunity. Therefore, co-watching sports with a smartphone will be a critical part of the growth of sports media over the next decade. This will include watching broadcasts, but it will evolve to include new viewing and social experiences that connect the fans at home with those at the venue.

COMPANIES TO WATCH:



With fans dispersed globally, mobile allows fans to participate regardless of where they are. The experience for in-person attendees will be driven through their mobile devices with vast capabilities consisting of fully integrated commerce that will drive food and beverage, merchandise, gamification, and content. Smartphones will also play an increasing role in creating a safe and healthy environment for fans attending events, while also enabling those who cannot attend to still be active participants.

JON ROMM
CEO AND FOUNDER - VENUETIZE

SMART STADIUMS

As people continue to interface with the world through their smartphones, so too will sports fans expect their stadium experiences to be improved through the ubiquitous technology. This means that every facet of the stadium experience, from transportation to and from the arena, to ticketing, to concessions, to even watching the game will be impacted by new forms of interaction powered by smartphones.

COMPANIES TO WATCH:



In today's world, leaving home without a phone is unthinkable. It is our wallet, our ticket, our network and our information booth. Conveniently, the same data that can keep people safe can help enhance their experience, from empowering individual choice of shorter concession lines to suggesting promotions related to location, the fan experience will benefit from a better understanding of the rhythm of the venue and the people within it.

JULIE JOHNSON ROBERTS
CEO AND CO-FOUNDER - ARMORED THINGS

SAFE & SEAMLESS SMART STADIUM EXPERIENCES

Additionally, sports fans expect a safe and seamless experience as sports stadia. This was no more true than today in the wake of the COVID-19 pandemic. Operators of sports venues will be expected to leverage all the technology available to make the experience for fans safe, secure, and hassle-free. At the heart of this push will be the one device nearly every fan will have in his or her pocket, the smartphone.

COMPANIES TO WATCH:



— THE SMARTPHONE
MAY BE THE
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WITH IT, THE WORLD
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THE FUTURE, IN YOUR HANDS



A handwritten signature in black ink that reads "Nick Brown". The signature is fluid and cursive, with a long horizontal stroke at the end.


NICK BROWN
DIRECTOR OF COMMERCIAL REVENUE, FIFA

This report has made a clear argument that when we look through an innovation lens towards future FIFA World Cups, including the biggest FIFA World Cup™ ever in 2026 held across Canada, Mexico, and the USA, the smartphone will remain the dominant platform for growth.

The scale of the FIFA World Cup™ as the biggest international sporting event on the planet combined with the heavy concentration of technology companies in the host markets means there are high expectations for the FIFA World Cup 2026™ to be the most digitally advanced and connected cultural mega-event ever. But we also know that this innovative future is not an inevitability. It will require deep partnerships and creative collaboration between stakeholders. It will rely on bringing together different capabilities that unlock magical experiences and meaningful services for fans, players, coaches, commercial partners, and event organizers.

It is not overly trite to say that the future is in our hands. The smartphone may be the single greatest innovation changing human behavior after the printing press, and the tail of the impact of its development will be long. For many, the smartphone has been a staple for a decade, but for many others, the smartphone continues to open up new and untold ways to connect, learn, work, and live.

This connection naturally manifests in the single most popular pastime in the world, the beautiful game. And there is no larger representation of football's global popularity, its emotions, and its unifying power than a FIFA World Cup™. At FIFA we are truly excited for the future at our hands and are looking forward to collaborating and co-developing with the most innovative partners across all FIFA mega-events on the road to 2026.



Sports Innovation Lab empowers sports brands to create breakthrough fan experiences through technology.

Sports Innovation Lab is leading a sports research revolution. We exist to educate our clients on the technological possibilities for their brand and how to ultimately drive value to the end consumer: the Fluid Fan™. We inspire brands to create bold fan experiences through data-driven technology insights and industry-leading research.

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End Notes

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