# How augmented and virtual reality experiences are changing marketing

Tony Parisi Unity Technologies July 2020

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# Why immersive media matters now

Immersive advertising is unlocking new opportunities for brands. The latest AR and VR capabilities are helping them connect and engage with consumers in a more impactful, emotional and interactive way.

Once considered an out-of-reach tactic in larger marketing budgets, today's immersive campaigns and activations are driving the strategies for consumer events, massive festivals, and global B2B conferences. Even with the restrictions resulting from COVID-19, these kinds of consumer experiences show no sign of slowing down, and the pandemic has accelerated this format's adoption. That's because marketing-savvy younger consumers don't want to be advertised to – they want to be part of the experience. In this e-book, we'll review:

- The immersive technology innovations that are driving market readiness today
- The emergence of next-generation social media platforms that have proven that the audience demand needed for AR and VR to take hold exists
- Immersive advertising's early impacts across
  multiple industries
- Today's engaged gaming audience, and the opportunity this presents to marketers, brands and advertisers



We invite you to take a look at some of the most successful experiential campaigns that have been created with intentional, meaningful impacts – and, most importantly, were developed with the audiences they're serving in mind. Rather than novel events intended to drum up buzz, these brands produced layered activations that were interesting, organic and authentic.

Join us in reviewing how to harness the power of technology, music and art to create multisensory experiences that draw the broader consumer into the conversation.

# Introduction

In 2019, digital advertising spend reached parity with its traditional counterparts like TV and print ads, and it's poised to overtake them in 2020 by making up a projected 59% of all ad spend in the U.S.<sup>1</sup> In roughly two decades, this incredibly effective advertising medium has leveraged the power of digital platforms and formats to optimize performance – but it often misses the mark in terms of keeping audiences' attention.

Meanwhile, audiences are leaning in more than ever as they move toward more expressive and interactive online venues, from next-generation social platforms to massive multiplayer gaming communities. Consumers from all backgrounds are spending more time online – specifically with gaming and entertainment. While the larger social media networks remain a strong driver of attention, the movement to emergent platforms with more visual and immersive content is inevitable, and already well underway.

Initial experiments with new 3D formats for marketing and selling products are showing encouraging results, from greater engagement to higher sell-through, across multiple segments. Major platform players in search, social, entertainment and e-commerce are substantially expanding on their innovation efforts to deliver interactive 3D representations of products and services throughout the funnel, from discovery and try-on to transaction.

At the same time, top-tier creative agencies are looking to diversify their offerings as more consumers move to streaming services and are willing to pay a premium to avoid ads. These firms' existing skills are well suited to creating captivating highend AR and VR experiences for their client base.

The next wave of digital advertising is upon us: more personalized, more responsive, and now, with an emotional component. Advanced media – real-time 3D, AR, VR, and mixed reality – are making marketers' dreams come true in terms of storytelling and engagement by combining the production value of blockbuster films with the interactivity and personalization of a digital ad. And this novel breed of immersive content is now being delivered across distribution channels at scale.

As in-app and in-game time continues to increase, it is becoming abundantly clear that games are an ideal venue to reach and keep the next-generation audience with highly engaging, interactive brand experiences that match consumers' interests, pace and expectations. This e-book explores the latest developments in immersive advertising, and showcases the brands that leverage Unity's real-time 3D content creation platform and in-game mobile ad network as a part of a broader strategy to capture consumer attention and drive outcomes.

"The next wave of digital advertising is upon us: more personalized, more responsive, and now, with an emotional component."

<sup>&</sup>lt;sup>1</sup>*eMarketer*, "US Digital Ad Spending Update Q2 2020," June 23, 2020.

# Technology and consumer behavior are trending immersive.



As 5G networking grows, so does the potential to deliver incredible immersive experiences to billions of users' AR-capable devices.

The computing landscape is undergoing sweeping changes in both technology infrastructure and consumer behavior. The wide availability of low-cost mobile hardware and software supporting real-time 3D graphics, machine learning, computer vision, and virtual/augmented reality has upleveled the potential for creating immersive user experiences at scale.

There are nearly two billion augmented reality-capable mobile devices on the market today, with a projected 598 million active AR users by the end of 2020.<sup>2</sup> This promising new market has been tapped by experiences and applications deployed across gaming, entertainment, news, social media, education, shopping, and enterprise. But this is just the beginning. Within a few years, ubiquitous 5G networking will power the delivery of interactive applications with mind-blowing cinematic production value to every device. We should expect to see content and infrastructure continue to co-evolve, in much the same way that rich media and 4G networks have developed together over the past decade – driven by a combination of changes in consumer behavior, computing capabilities, and commercial success.

**598M** 

projected active AR users by the end of 2020

**1.73B** 

projected AR-enabled devices by the end of 2020

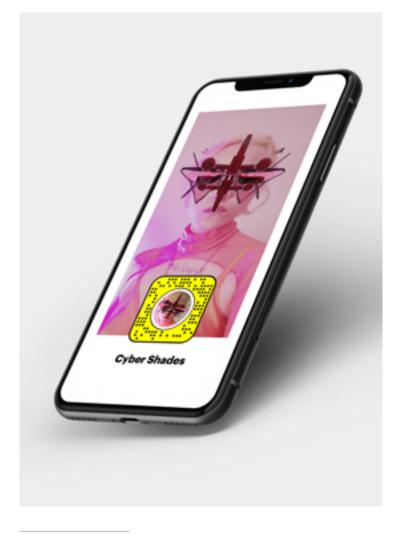
<sup>&</sup>lt;sup>2</sup>AR Insider, "Mobile AR Global Revenue Forecast," July 2020, https://artillry. co/artillry-intelligence/mobile-ar-global-revenue-forecast-2019-2024

# The online experience is going virtual

While the larger social networks still dominate in terms of numbers, change is afoot. The latest generations of mobile users are on Snapchat and TikTok – platforms that provide the latest tools for self-expression and personalization. Increasingly, a significant and growing portion of the content created and shared on these networks is immersive.

Snap – the self-proclaimed "camera company" that continues to drive innovation in computer vision and augmented reality – has more than 160 million Snapchat users who interact with AR every day.<sup>3</sup> From face filters that let a user transform selfies into something ultra-cool or fantastical, to the Landmarkers feature that allows creators to bring real-world places to life with compelling animated content, Snap has set the bar on user-generated immersive content.

Snapchat AR Lens – Cyber Shades by Sarah Mayer



Facebook has fast-followed Snap in recent years, providing excellent support for augmented reality filter creation on Facebook, Instagram and WhatsApp through their Spark AR platform.

Meanwhile, TikTok is changing the social game again with micro-entertainment and bursts of distraction. Videos are fun, short and digestible anytime and anywhere. They offer a sense of personal expression, and engagement is driven via community-shared but ephemeral content and experiences. TikTok is experiencing explosive growth:

Looking at Apptopia data, TikTok downloads hit 327 million globally from July through December in 2019; in 2020, downloads grew to 417 million from January through June.<sup>4</sup>

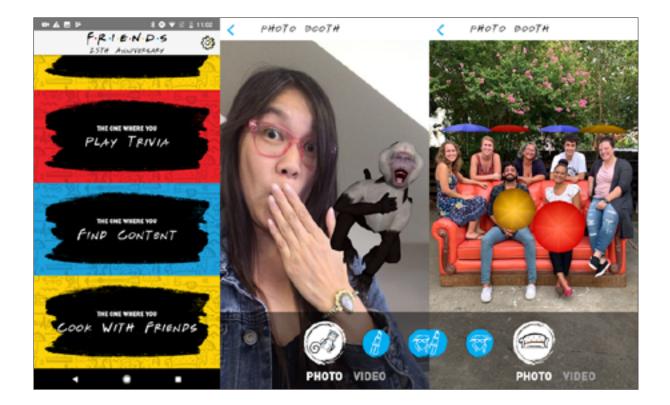
According to Sensor Tower, TikTok was the second most-downloaded app in 2019, after WhatsApp.<sup>5</sup>

TikTok recently announced that it's bringing augmented reality ads to the platform. This is their first AR offering, available only to brands, but it would be reasonable to expect the service to enable AR creation for their users as well in the near future.

<sup>&</sup>lt;sup>3</sup>AR Insider, "Snapchat Reaches 163M Daily Active AR Users," February 24, 2020.

<sup>&</sup>lt;sup>4</sup>Apptopia, App Insights Downloads Report, July 1, 2020. Global data does not include China.

<sup>&</sup>lt;sup>5</sup>Visual Capitalist, https://www.visualcapitalist.com/ranked-most-downloaded-apps/, January 25, 2020.



Friends 25 by Double A Labs for Warner Bros. To celebrate the 25th anniversary of the hit TV sitcom *Friends*, the agency prototyped the app in Unity and built it native to Apple/Android. It features AR filters, stickers, trivia, and an interactive AR game. Taken together, we are talking about hundreds of millions of social network members worldwide who are exposed to augmented reality on a daily basis. These users, in particular the millennial and Generation Z cohorts, are the first generations for whom immersive content is native and unsurprising – in fact, it's expected. Immersive media is the content they have grown up with and will demand in the coming years; nothing less will satisfy.

An additional consumer trend worth noting here is the emergence of the massive multiplayer video game as an online community. Games like Fortnite and Animal Crossing are transcending play, becoming social platforms in their own right.

On April 23, 2020, players of the battle-royale video game Fortnite logged in to watch a 3D digital avatar of Travis Scott teleport around a beach, tower against a blood-red sky, and launch audience members into outer space. It was all part of a 10-minute virtual concert, the game's biggest event ever, and 12.3 million players were reported to have tuned in. The Travis Scott attendance surpassed the previous Fortnite milestone for the over 10 million players who logged in for an in-game Marshmello DJ set in 2019.

With social media becoming more immersive, and immersive games growing into venues for social gatherings, the online experience is clearly going virtual. The line between the real and virtual worlds is blurring, creating fresh opportunities for brands to engage consumers, not only in these novel venues, but with new types of media.

# Real-time 3D is transforming every industry



The world's first XR test drive. Volvo Cars and Varjo created this Made with Unity mixed reality driving experience that mixes real and virtual elements for safer feature development.



Underlying this wave of change is a steady increase in computing power – in our pockets, at the office, in showrooms, and in the living room. Unity – the leading platform for creating and operating interactive, real-time 3D (RT3D) content – was forged in video gaming and is now being used in nearly every industry.

Unity's success in powering 3D creation for games – an industry that has been using real-time creation for more than two decades – has allowed us to drive significant impact in other markets, from cinema to architecture and engineering to manufacturing. Global brands across industries are using Unity's platform to transform their business and reach consumers with real-time 3D on platforms including desktop, mobile, and virtual and augmented reality.

John Legend and Wave Presents collaborated on A Night for "Bigger Love," a live virtual concert featuring a Made with Unity digital avatar of Legend.

# Brands are mobilizing on 3D ads and e-commerce

Brands are beginning to tap into the power of immersive technology and mass-scale immersive platforms to reach audiences with emerging forms of marketing content – interactive 3D ads, augmented reality ads, mixed reality location-based activations, and more.

According to AR Insider, AR advertising reached nearly half a billion dollars in revenue in 2019 and is expected to grow to \$8B by 2024.<sup>6</sup> The majority of that revenue came through social applications like Facebook, Instagram and Snapchat, but other technology and media companies such as Unity, Verizon Media and Google have entered the market with advertising products in the past year, tapping massive audiences to deliver short-form, interactive augmented reality brand experiences. These new types of AR ad experiences are delivered as ad units or sponsored content into existing mobile apps or websites that already have sizable audiences.



**\$88B** in projected AR advertising revenue in 2024

Snap continues to innovate beyond front-facing selfie lenses, including lenses that augment the real world using a back-facing camera with simple effects as well as full 3D objects.

Snapchat introduced their Landmarker technology in 2019, allowing content creators to attach virtual objects and animations to physical places in the world. Landmarkers are being used with great effect by brands, including an activation by HBO that brought a *Game of Thrones* dragon to New York's Flatiron district.

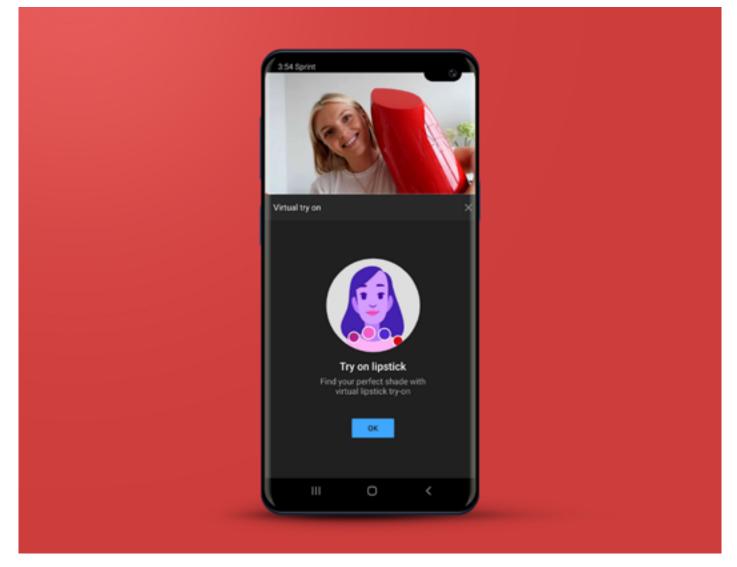
Chinese Theater by Clay Weishaar – Snap Landmarker-based AR filter



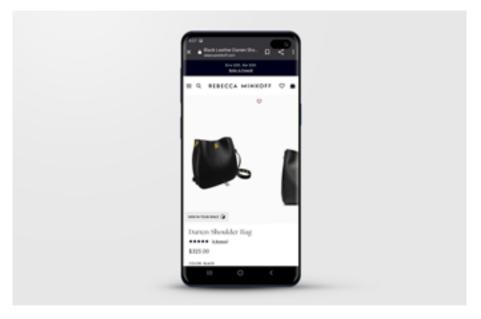
<sup>&</sup>lt;sup>6</sup>AR Insider, https://arinsider.co/2019/08/22/ar-advertising-projected-to-reach-8-8-billion-by-2023/, August 22, 2019.

Google has announced multiple efforts in this area. 2019 saw the launch of YouTube AR Beauty Try-On, an ad product focused specifically on the beauty industry. The product lets viewers virtually try on makeup while watching tutorials or product reviews, in partnership with notable influencers and brands like MAC Cosmetics.

As mobile browsers become AR-capable, advertisers are increasingly turning to Web AR to deliver brand experiences. Startup 8th Wall boasted over 100 Web AR-based marketing activations in 2019, including a promotion for Sony's film *Spider-Man: Into the Spider-Verse*. The campaign used 8th Wall's Web AR technology to deliver Spiderman into living rooms around the world – with no download or install.



NARS Cosmetics YouTube Try-On AR ad



Rebecca Minkoff Shopify page demonstrating 3D models that enable users to not only view the product from any angle but also place the object via AR.

3D and AR aren't just fueling higher engagement; they're also driving sales. Manufacturers and retailers are experimenting with 3D for e-commerce, with promising early success.

Shopify reports<sup>7</sup> that customers who interact with 3D models are up to 2.5 times more likely to complete a purchase than those who view static product images. Trailblazing fashion brand Rebecca Minkoff integrated 3D models of products into their website last fall. When consumers interacted with 3D models on product pages, they were 44% more likely to add an item to their cart and placed an order 27% more often compared to those who didn't engage with the 3D models. Visitors who viewed the products in AR were 65% more likely to make a purchase.



more likely to add a product to their cart after viewing a 3D model



more likely to complete a purchase after viewing a 3D model



more likely to purchase after viewing an AR product

Many of the examples above represent the initial commercial forays by platform providers and marketers, but the results are extremely encouraging. From discovery to conversion, 3D and AR are promising to be an indispensable tool across the audience funnel.

<sup>&</sup>lt;sup>7</sup>Shopify Blog, https://www.shopify.ca/blog/3d-models-video, March 14, 2020.

Immersive media is changing the brand-customer relationship. The radical transformation of the computing experience to immersive real-time 3D represents a step change, not the gradual evolution it appears to be when viewed through the lens of the current moment. The future is already here – though it's not yet evenly distributed. We are in the midst of a third great wave of internet connectivity: from text and images, to video, and now to immersive media.

With each step in connectedness, we have seen a major advance in digital advertising. After the era of search, social networking emerged to open the floodgates of a two-way conversation, and advertisers adapted accordingly. Immersive platforms are ushering in the next great wave, with new creation tools and an expectant audience – and this wave is being accelerated by rapid societal change. The most futureforward brands are already taking advantage of this moment to create engaging content and compelling stories while forging lasting customer relationships.

"Immersive platforms are ushering in the next great wave, with new creation tools and an expectant audience – and this wave is being accelerated by rapid societal change."

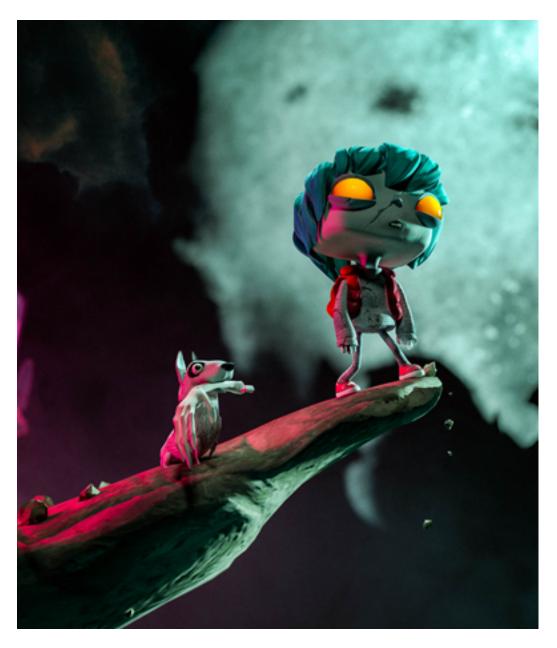
# A renaissance in storytelling

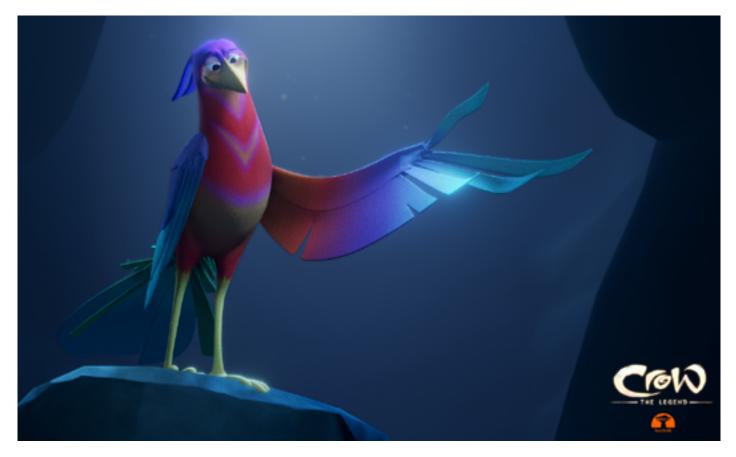
If the previous decade of digital advertising was about performance, the coming decade will be about storytelling.

The rush toward scale- and results-driven content has yielded brand conversations that are often short, soundbite-laden and vacuous. Immersive media like virtual reality and augmented reality are changing this, and, going forward, advertisers will need to adapt to strategies that better balance performance and media buying with storytelling and creative direction.

Virtual reality gives us the ability to transport people to other places - real places that we've captured as live 360° video, or completely synthetic, fantastical places created with CG and rendered in real-time. In a VR headset, we're fully immersed in worlds, and well-designed experiences are so present and engaging that we forget about what's outside. With augmented and mixed reality, we can bring magic into the real world by overlaying graphics and bringing stories to life on a tabletop, in a child's playroom, or in a forest. The world becomes our canvas.

Gloomy Eyes, directed by Fernando Maldonado and Jorge Tereso, created by Atlas V — Made with Unity. *Cloomy Eyes* is an animated VR experience that premiered at the Sundance Film Festival (2019), was awarded Best VR Experience at the Annecy International Animation Film Festival (2019), and won the Jury Award for Storytelling at SXSW (2019).





*Crow: The Legend* is a VR film by Baobab Studios that features a star-studded cast, including John Legend, Oprah Winfrey, and Constance Wu. This Made with Unity experience won four Emmy® statuettes in 2019.

"In this challenging new world we're living in, people are becoming increasingly thoughtful about their choices, and more discerning about how they spend their time."

While the use of consumer VR on a mass scale has happened in fits and starts due to the pace of hardware adoption, mobile augmented reality has enjoyed massive distribution and early adoption.

But it's not enough to reach consumers in droves – that's just table stakes. In the future, connecting with audiences will harness media that deliver visceral, tangible experiences and restore brand affinities in ways that are immersive, relevant, and personal. Otherwise, there's no way to get above the noise. More importantly, people are becoming increasingly thoughtful about their choices and more discerning about how they spend their time.

Let's take a look at how one industry-leading creative agency used immersive storytelling to create an unforgettable experience.



### JFK Moonshot

In July 2019, Digitas partnered with the John F. Kennedy Presidential Library and Museum to produce JFK Moonshot, an innovative AR simulation app celebrating the fiftieth anniversary of the first moon landing. Digitas teamed up with UNIT9 to create the experience, which uses a combination of archival footage and 3D digital assets to let audiences follow the Saturn V Rocket on its five-day journey from the Earth to the Moon. People could experience the 363-foot (111-meter) Saturn V's launch from outside the JFK Library in Boston or recreate the event anywhere in the world – from a life-sized simulation of the rocket in their backyard to a scaled-down version that could launch off their coffee table. With 140 million app downloads and 230 million global impressions, this campaign was a massive success for the museum, which enjoyed an 11% attitudinal lift among millennials and a 5% increase in visitation, reversing a nationwide trend of declining museum attendance.

While people can turn away from a targeted commercial ad, press release, or sales copy, a well-crafted immersive story is irresistible. The art of the raconteur is still as relevant as it ever was; only today, brands in particular have new tools to enhance the storytelling experience.

JFK Moonshot AR Experience by Digitas for JFK Presidential Library and Museum – Made with Unity

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# The advertising industry hasn't seen an advance in tools like this – captivating, high production-value storytelling combined with mass-market reach – since the advent of television.

Only this time around, the content is interactive, responsive, performant, and demands engagement.

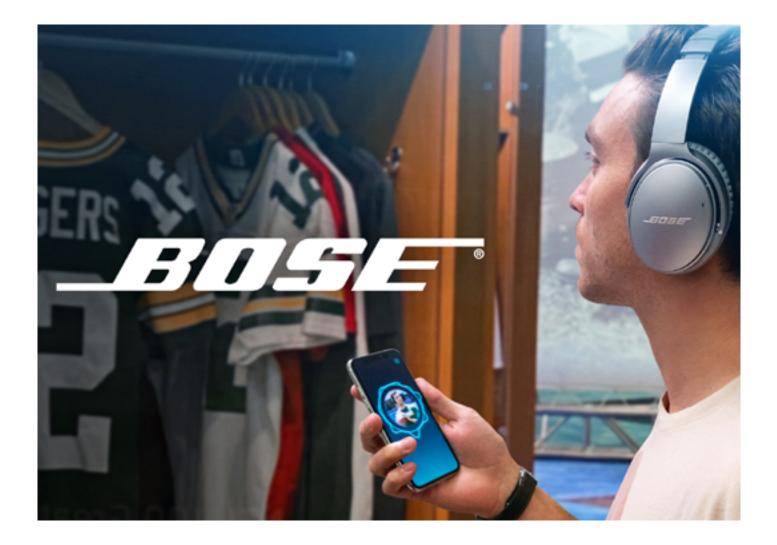


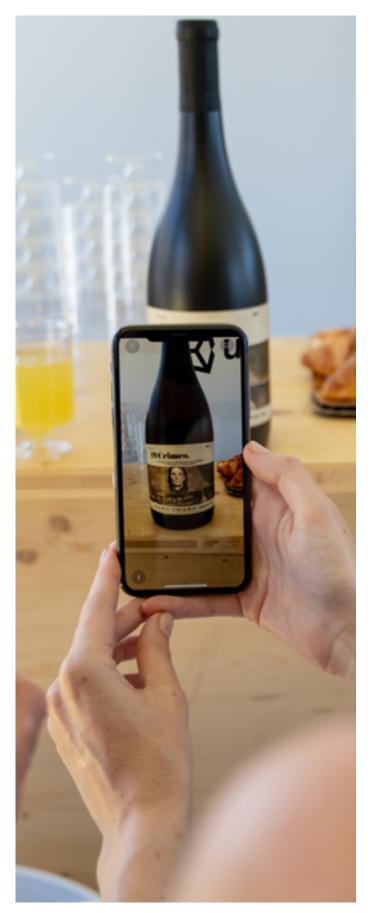
# Immersive marketing delivers results

### Ultimately, advertising is still about achieving business outcomes. Immersive storytelling content is not just groundbreaking and cool – it is also demonstrating that it can perform.

Creative agency Trigger Global used Unity to create something unique for the 2020 Super Bowl. The Bose Super Bowl Locker Room Experience, featured at the Super Bowl LIV Fan Experience, was a hands-free installation combining beacons and Bose AR audio technology with exclusive audio from Bose Roster players like Christian McCaffrey, Russell Wilson, and Aaron Rodgers. After putting on Bose headphones, fans were virtually placed into the locker room via an immersive spatial audio experience. On approaching a player's locker, fans experienced an exclusive game-day interview just like the player would, surrounded by reporters and fans and creating an indelible link between Bose and this otherwise-inaccessible game day fantasy.

Bose Super Bowl Locker Room Experience by Trigger Global – Made with Unity





19 Crimes AR labels from Tactic – Made with Unity AR-enriched storytelling brings 19 Crimes labels to life.

Marketing agency Tactic has been bringing product packages to life for major brands like Coca-Cola and Jack Daniel's using augmented reality and the Unity platform. Working with Australian winemaker Treasury Wine Estates, Tactic created the Living Wine Labels app, which enhances bottles of some of their signature wines with eye-catching and fun AR experiences. In one memorable campaign for their 19 Crimes label, bottle labels come alive with a short AR experience telling the stories of criminals who escaped the gallows to a better life in Australia.

In total, the 19 Crimes experience has yielded:

# **750M+**

impressions

**4M+** 

app downloads

**30M+** views of viral fan videos

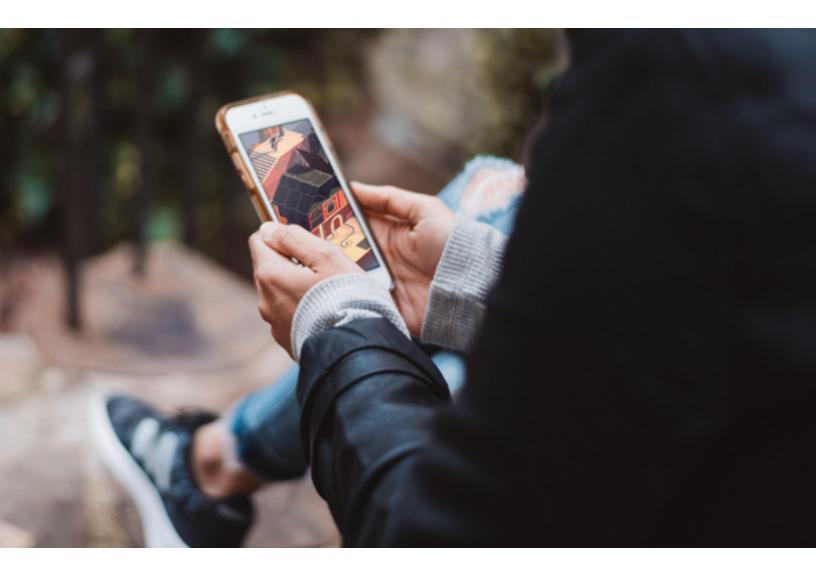


increase in sales

These brief examples clearly show that augmented reality is more than just a great way to capture consumers' attention; it can also generate tangible results. Mobile AR is quickly moving from novelty to utility as it shows its promise for providing lasting value for advertisers.

# Gaming is the ideal immersive advertising platform.

Arguably, games are the most immersive type of interactive content. People are deeply engaged when playing games – they are in the story, a part of the action, and heavily invested in the outcome. This can make them highly receptive to advertising.



Monument Valley 2 by ustwo Games - Made with Unity

An engaged, immersed mass audience combined with compelling immersive content like 3D and AR can make for an incredibly powerful advertising combination. What's more, in-game time is also on the rise.

# People are playing more games than ever

Mobile apps are today's primetime: in 2019, the time spent on mobile finally surpassed that of TV, and that delta is increasing in 2020 and beyond. Of the time consumers spend on their mobile phones, 89% is spent in-app, nearly 10x the time spent on the mobile web. <sup>8</sup>

Among the many categories of mobile applications, gaming usage is up dramatically. This was happening steadily year-over-year, and now that trend has accelerated with a neverbefore-seen spike due to the COVID-19 pandemic. Unity recently published a report on COVID-19's impact on user behavior and advertising in the gaming industry. Major insights in that report include:

### More people are playing than ever,

with a 46% daily active user increase in HD (console and PC) gaming and 17% increase in mobile gaming

### Weekend and weekday differences in gaming behavior

narrowed globally by 63%

### Microtransactions have grown,

with in-app purchase (IAP) revenue growth for mobile games increasing by 24% since the pandemic was declared

### Mobile gaming ad impressions increased

by 57% and ad revenues increased by 59% for the weeks following March 8, 2020 as compared to the timeframe in 2019

### Mobile gamers are installing more apps than ever,

with the number of installs increasing by 84%

The reality is that more people are gaming, and this captive audience is not only engaged for longer periods of time, but they're also spending in-game at rates that are usually seen only around the holidays. With ad experiences that offer higher interaction rates, games offer an unparalleled action-oriented consumer that will be critical for brands as they look to resuscitate sales in the second half of 2020. Advertisers and marketers who understand the value of the gaming audience and can incorporate immersive advertising into their digital spends now will not only be served by the current moment; they will be well positioned for our immersive advertising future.

<sup>8</sup>comScore, *Mobile Metrix*, June 2020

# Unity: The leading real-time 3D platform and in-game ad network

Unity's real-time 3D development platform powers half of all new mobile games, as well as over 60% of the world's virtual and augmented reality content across desktop, console, and mobile hardware devices.

Unity is also the premier in-game advertising platform, with a global audience of nearly two billion engaged monthly players and the ability to deliver a range of formats, from highly performant video to engaging interactive 2D, 3D and AR content in ads.

# 20 different platforms run Unity creations

50% of games are powered by Unity (average PC/console/mobile)

54% of top 1,000 grossing mobile games powered by Unity globally

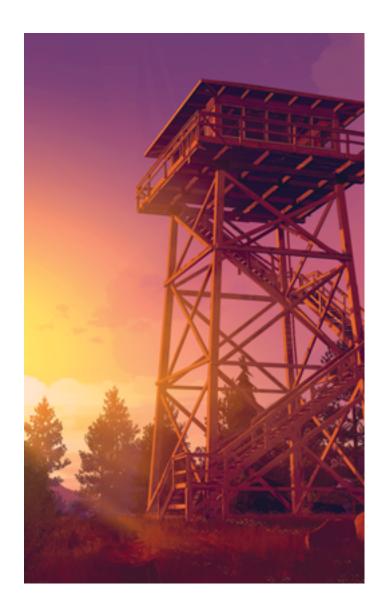
3B monthly downloads of apps developed by Unity creators

120M+ end users communicated using Unity voice and text service on average monthly in 2019

190 countries with Unity creators

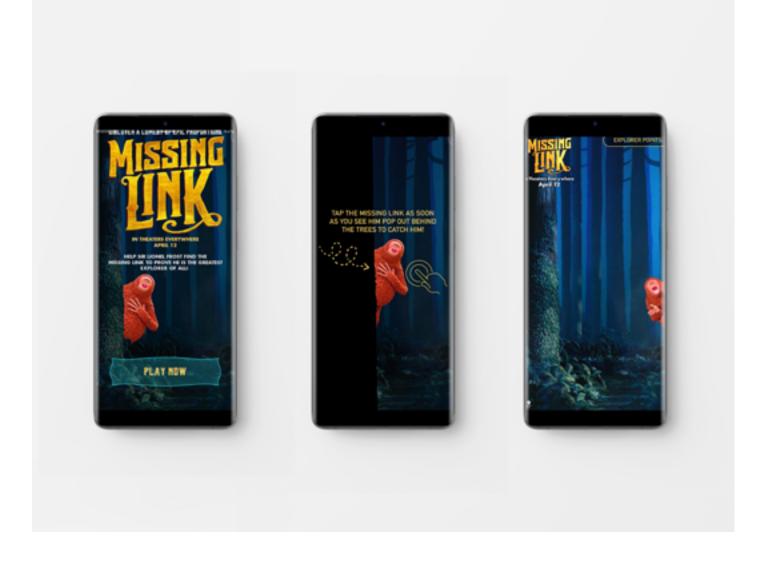
In 2019, Fast Company named Unity #1 in the enterprise sector and #18 overall on its annual list of the top 50 most innovative companies

*Firewatch* by Campo Santo – Made with Unity. *Firewatch* is a mystery set in the Wyoming wilderness, where your only emotional lifeline is the person on the other end of a handheld radio.



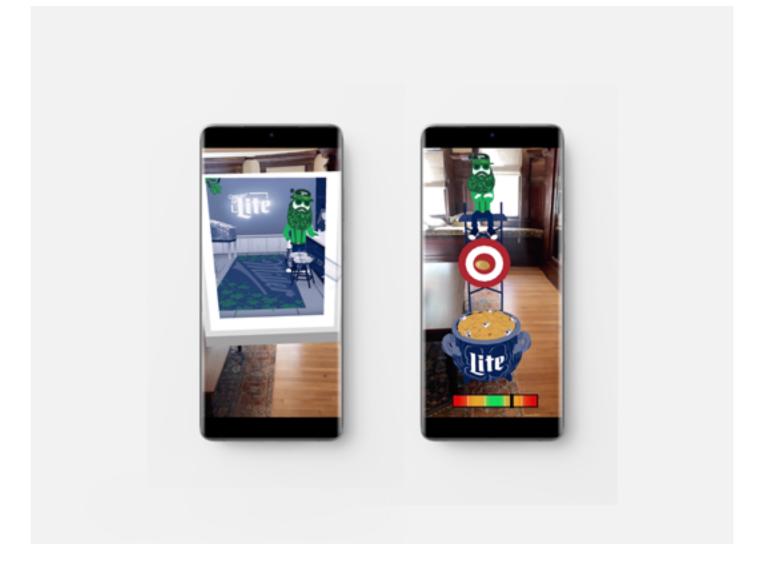
# Immersive ad formats for the immersive generation

While Unity is best known for powering the mobile video advertising format, we have been at the forefront of delivering innovative immersive formats for the last several years.



Missing Link Playable Ad from Workinman. Unity partnered with Canvas and Annapurna on this whack-a-mole-style Playable Mini-Game, which exceeded our 20% engagement rate benchmark by more than 2x. **Playable Mini-Game:** These ad units provide an authentic experience to users by giving them a custom-built branded mini-game to engage with during an ad break from the game they are playing. These ad units can be either 2D or 3D games that run for 15–20 seconds with an end card with the brand's CTA. All categories of gameplay are available, including endless runner, match 3, basket toss, and more.

**Responsive AR:** This patent-pending ad format allows a user to have a 3D/AR ad experience. Each of our three AR ad formats (360° Portal, AR Mini-Game, 360° Product Explorer) initially launches as a 3D experience with a note that an AR version is available. If a viewer is not interested in turning on their camera, they continue to interact with a 3D experience. If they do enable their camera, they are launched into an AR version of that same experience that now lives in their real environment.



Miller Lite AR ads by Tiltshift. Unity partnered with Spark Foundry and Miller Coors on this 2019 Miller Lite St. Patrick's Day campaign, which included both the 360° Portal and AR Mini-Game Ad Units. The AR Mini-Game had a 75% re-engagement rate and the campaign overall drove a 25% lift in Miller Lite favorability in association with St. Patrick's Day. The time to start incorporating immersive experiences into marketing plans is now. More than ever, advertisers and brands need to unlock the power of immersive and interactive content to genuinely connect with engaged audiences. They need to go beyond sales pitches and deliver emotional and tangible results. Today's audience is discerning and has a limited attention span, and they demand bold, thought-provoking messages that leap from the digital page and construct a new reality around them. With augmented reality supported on a billion devices, and Unity able to deliver Responsive AR advertising to a significant percentage of its global advertising audience, brands can reach consumers at scale with highly engaging interactive experiences that match game players' interest, pace and expectations.

The short-term wins of immersive marketing are in the out-of-home experiences brands can deploy to bring smiles to the faces of consumer audiences. However, the lines between pure-play marketing and product interactions will blur as consumers move deeper into an integrated and connected world with advanced technology. AR and VR are more than a novelty – they are the next frontier of advertising. Brands that go the extra mile to create genuine experiences that connect consumers to issues, products and messages like never before are defining the new terms of engagement.



# To learn more about Unity's solutions for immersive advertising,

please visit our website or contact us via email.

# Acknowledgements



### Author

### Tony Parisi, Head of AR/VR Ad Innovation, Unity Technologies

Tony is a virtual reality pioneer, serial entrepreneur and angel investor. He is the co-creator of 3D graphics standards, including VRML, X3D and gITF, the new file format standard for 3D web and mobile applications. Tony is the author of O'Reilly Media's books Virtual Reality and WebGL: Learning Virtual Reality (2015), Programming 3D Applications in HTML5 and WebGL (2014), and WebGL: Up and Running (2012).

Tony has become one of the leading spokespeople for the immersive industry, speaking on industry trends and technology innovations in virtual and augmented reality at numerous industry conferences. He was recently named in Next Reality's 30 People to Watch in Augmented Reality in 2019. Tony is currently Head of AR/VR Ad Innovation at Unity Technologies, where he oversees the company's strategy for virtual and augmented reality brand advertising and monetization.

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