# the SoDA REPORT On

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TRENDS IN AR, VR + MIXED REALITY

**SoDA**

**Welcome to this special edition of *The SoDA Report on Trends in AR, VR, & Mixed Reality*, developed in partnership with Microsoft.**

We are thrilled to feature this report in a series of white papers released under *The SoDA Report* On… moniker designed to conduct deep dives on a targeted issue which impacts the companies and people who are creating the future of marketing and digital experiences.

As devices become more powerful and capable of creating higher quality visuals, AR and VR are becoming increasingly sophisticated. Within this special report, leaders from the SoDA community dive into the current and future state of AR, VR and Mixed Reality. Read as they share their latest project work and dive into the methods, mindsets and capabilities that enable them to succeed in a world where creative, design, technology and customer experience are immersive and inseparable.

I'd like to thank the Microsoft team for their support of SoDA and the *SoDA Report* series. To become a subscriber of *The SoDA Report*, please email SoDA and we will ensure you have priority access to the release of upcoming editions.

We hope you enjoy this report and, as always, welcome your feedback, ideas, and contributions for future editions.

Lakai Newman
Managing Editor and Head of Production, *The SoDA Report*

## Building the Next Generation of Intelligent Experiences

**by Jaclyn Stiles, Microsoft**

Rapidly changing consumer expectations have disrupted nearly every industry and these shifts are driving new engagement patterns among digital users. We are well past the days where an online or mobile presence alone is sufficient. It is now imperative for organizations to create beautiful, compelling UI that communicates a clear brand voice and perspective, but also incorporates a seamless, powerful, omnichannel strategy that leverages the latest emerging technologies.

A growing example of this is Mixed Reality – a broad term that includes true virtual reality simulations and augmented reality overlays of the physical and digital world. Mixed Reality is rapidly becoming an important component across digital transformation initiatives.

In a recent report[1] by Harvard Business Review Analytic Services, industry leaders saw Mixed Reality as a key component in meeting their overall business objectives. According to this survey of 394 executives, "87% of respondents are currently exploring, piloting, or deploying mixed reality" and "68% of respondents believe mixed reality is important to achieving their companies' strategic goals in the next 18 months." In fact, "improved customer experience," "more efficient work processes," and delivery of a "competitive advantage" are the top areas of impact that business leaders anticipate for Mixed Reality over the next few years.

Fortunately, continued advances in cloud computing, machine learning, and data processing capabilities have unlocked our access to the amount of information we can utilize—and the speed with which we can process it—to create truly intelligent experiences for our customers. While this opportunity is full of promise and excitement, many brands are struggling to separate technology trends from lasting innovations, and how to make sound digital investments. At the same time, they are also bogged down with the high costs and increasing headache of managing outdated technologies. Technology partners like Microsoft and a growing ecosystem of digital agency innovators (like those in the SoDA community) can help them better navigate this journey.

To do this, brands and their agency partners need to think about App Modernization and moving legacy applications to the cloud. This can start with lifting on-premise infrastructure and shifting it to a cloud environment, but that doesn't necessarily take advantage of the full capabilities and services. Businesses may also need to rearchitect and move their multi-tiered, monolithic applications into containerized platforms using microservices. They can rewrite their code entirely with a serverless architecture or use event-driven functions, which requires significantly more

engineering capabilities. Together, these steps can result in a lower total cost of ownership, and increased security, scalability, and flexibility.

In addition to App Modernization, brands and their agencies can think more seriously about building rich, intelligent experiences through App Innovation. This can include web, mobile, voice, wearables, IoT, and augmented, mixed, or virtual reality applications, infused with artificial intelligence and powered by the cloud. Businesses are also increasingly leveraging software innovation to gain a competitive edge, so technology partners and the agency ecosystem need to provide more support in implementing strong DevOps practices.

Now is the time for brands and their agency partners to design and build cloud-native applications that can generate net new revenue streams through differentiated intelligent experiences for their customers. These experiences must be intuitive and meet users where they are, fueled by data and predictive analytics to give users what they want before they know they want it. AI-powered applications—built with technologies like facial recognition, body tracking, and speech intent—can understand what is happening in the physical world and respond in real time to the user, virtually. Mixed reality is a powerful culmination of each of these components, leveraging the flexibility and scalability of cloud-based data, applications, and services along with innovations in hardware to deliver rich, branded and intelligent customer experiences.

As VR, AR and Mixed Reality gather momentum in the marketplace, I'm thrilled to be part of this report with SoDA community leaders as they share some of their latest project work and dig into the methods, mindsets and capabilities that enable them to consistently deliver innovative, meaningful and ground-breaking work in a world where creative, design, technology and customer experience are inseparable.

Jaclyn Stiles
Intelligent Cloud Partnerships, Microsoft

[1] Harvard Business Review Analytic Services. (2018, June 21). Mixed Reality: A New Dimension of Work. Retrieved from https://hbr.org/resources/pdfs/comm/microsoft/MixedRealityNewDimensionOfWork.pdf on June 24, 2019.

**Owen van Dijk, Firstborn**

# What's Next for Augmented Reality



Augmented reality has enjoyed a massive resurgence in recent years as advances in technology have made it easier for developers and consumers alike to embrace it.

The introduction of software frameworks like Apple's ARKit and Google's ARCore has lowered the bar for developers to create markerless apps that augment the real world with virtual content. New hardware such as Microsoft's HoloLens 2 and the Magic Leap have shown us what "Always On" AR looks like, and consumer apps like Snapchat, TikTok, and Instagram have introduced AR into the lives of millions of users without ever mentioning the technology itself.

We've also seen the expanding potential in marketing and advertising that AR represents thanks to brilliant campaigns from some of the world's biggest brands. Burger King set competitors' billboards on fire through the power of AR and Foot Locker reinvented the sneaker drop with their AR scavenger hunt campaign for Nike's highly coveted "Court Purple" Lebrons.

From innovative ad campaigns to fun time-passers like Snapchat filters to useful tools like Google's AR-enabled navigation, it seems that every day there is a new application for augmented reality, and the future of this technology is very exciting.

**The Technology Behind Augmented Reality**

The magic of markerless augmented reality is made possible by complex and computationally intensive computer vision algorithms. In order for those algorithms to correctly project virtual content into the real world, they must perform three primary tasks:

1. They must determine where the device is in space, known as localization.
2. They must understand what the world and its geometry look like by capturing sparse "point clouds".
3. They must see the world the way humans do by detecting and recognizing objects and images.

It was only recently that our mobile devices became powerful enough to handle those complex tasks, and the algorithms behind AR only get more and more complex and advanced each year. For instance, recently Apple announced ARKit 3, with cutting-edge new features like motion capture and people occlusion — the ability to detect humans so virtual content is projected behind and in front of them.

But advanced algorithms are only one part of the equation. Good augmented reality also requires virtual content that looks and interacts as realistically as possible, and real-time 3D game engines like Unity and Unreal Engine are pushing the boundaries of what's currently possible. Real-time raytracing, a technology that seemed impossible only a few years ago, allows these engines to render and blend images with the real world with maximum realism. For example, Unity recently released a video showcasing a virtual BMW next to the real thing, and many people couldn't correctly identify which was which. Currently, this does require powerful desktop hardware, but it will be a matter of time before it's available on mobile devices.

Finally, for virtual objects to exist persistently in the real world and facilitate more efficient processing and projection, companies are utilizing a concept called the AR Cloud. In the AR Cloud, the point data captured by all individual devices is stored in the cloud and reused and shared in real time with every other AR user in the same physical location. That can significantly reduce the processing power required from each device, but unfortunately, most vendors are keeping their collected data to themselves, limiting the AR Cloud's impact.

**The Future of Augmented Reality**

There are a lot of sceptics that dismiss augmented reality outright. They say AR is a feature rather than a product; they deride it as nothing more than entertainment, useful only for face filters and games; many criticize the UX or point out that users are only willing to hold up their phones for a few minutes at a time. These arguments are as old as the technology itself, and yet AR continues to become more ubiquitous with over 70 million users reporting to have explored AR in the last 12 months. However,

that doesn't mean there aren't any drawbacks.

There are significant issues with the current state of AR that need to be addressed. Privacy issues when capturing data and the question of who owns the rights to AR Cloud data are genuine concerns. There are also ethical concerns with the ways constant improvements in machine learning could be combined with augmented reality. The world has already seen the Mona Lisa come to life thanks to machine learning, so it isn't hard to imagine a future in which hyper-realistic AI driven personas could be continuously projected into our world, fighting for our attention – a scenario right out of an episode of Black Mirror. Will AR benefit all of us or only the privileged few?

While these are valid points, most critics are missing the point. *In many ways, AR is a huge part of the future of computing.* Just as the smartphone has changed the way we communicate, find a ride home, and order dinner, AR is changing how we interact with computers. Thanks to AR, the days of pointing, clicking, and dragging are coming to an end. Instead, AR will enable us to use our voices or virtual hands to control objects projected directly into our real-world surroundings.

Industries as varied as healthcare, industrial manufacturing and retail will be transformed by AR. Imagine a remote surgeon planning and executing an operation using AR glasses projecting a virtual patient in meticulous detail, or industrial designers working on a new product in a shared real-time design sessions via telepresence and AR, or augmented try-on's allowing consumers instant visualization before having to make a buying decision. There are many unknown and untapped potential opportunities with hands-free always on AR glasses — everyone will have access to contextual information about everything around them, all in the blink of an eye.

Truth to be told, the technology isn't there yet. The algorithms need to get better, the rendering needs to be more realistic, and the hardware needs to be smaller and more powerful. But despite the current limitations of the technology and the valid concerns surrounding it, AR is being adopted by both businesses and consumers at a rapidly increasing rate making it undeniable that Augmented Reality is here to stay.

*About the Author: Owen van Dijk is a Principal Software Architect at Firstborn where he develops and architects digital experiences, platforms & products for global brands through the innovative use of software and emerging technology. He brings 15+ years of international experience as a technologist for clients such as Apple, Adidas, Absolut, Jaguar Land Rover, Red Bull, Supercell & Toyota. He works and lives in New York.*
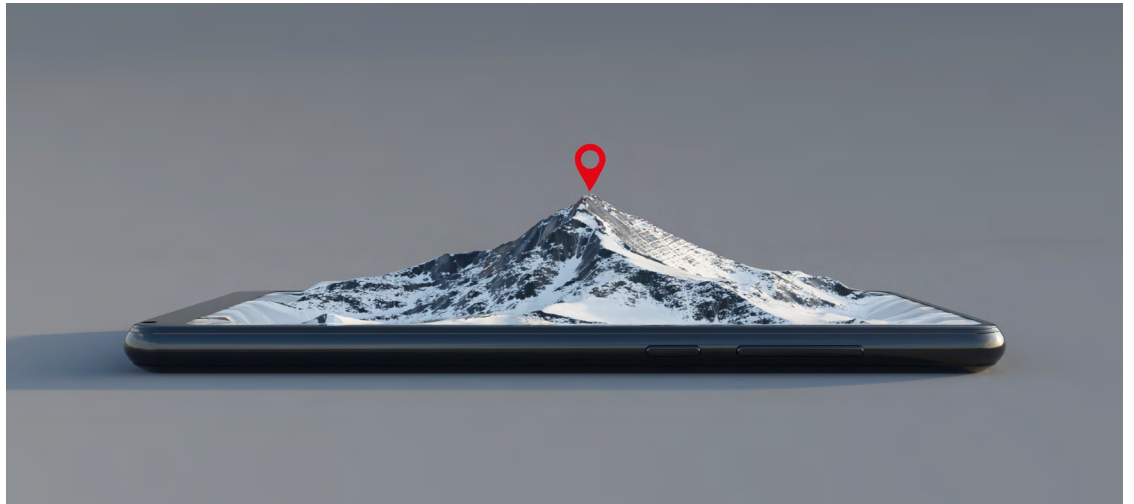
**Samuel Snider-Held, MediaMonks**

# Back to Reality: Looking Past AR, VR Hype



There seems to always be a new development in AR or VR, continuing a never-ending cycle that has brands cheering: *finally, we've found the practical use case!* This sequence sustains a sense of hype that makes brands feel obligated to offer some sort of immersive AR or VR experience.

It's great that brands are inspired by new storytelling opportunities, but before investing in virtual or augmented reality, it's time they take a reality check.

If brands want to appear innovative for supporting AR and VR, they're already too late—the tech is no longer the shiny, new thing it once was, and brands can't blame a subpar experience on experimentation, either. This approach stems from taking a myopic view of marketing results—in this case, the appearance of innovation—over how a given touchpoint impacts the broader customer experience.

Once, a client approached us wanting to showcase its candles through social AR, but doing so wouldn't have provided any real benefit—the product's differentiator is its scent. The fragile flicker of the digital candle flame shines light on a big issue: brands must do a better job at gauging whether AR or VR actually make sense for their brand, product or audience.

Some industries or product types make a good fit for tech, and some just don't. With its immersive storytelling capabilities, VR is an ideal platform for brands that rely on customers testing an experience out before they decide on a purchase. Examples include virtual home tours or automakers that offer VR test drives, both of which could allow users to inhabit the virtual scene at different times of day or in different locations.

Short and shoppable moments, meanwhile, are right at home in AR. This includes fashion or shoe brands that let users examine an item before they buy. Furniture retailers like IKEA, which lets users see what furnishings would look like within their homes, also make for a strong use case. And with SparkAR on Facebook or Lens Studio on Snapchat, entertainment brands like Marvel and Game of Thrones have had a lot of success with pulling users into their worlds, as have beauty brands providing makeup filters.

When it comes to selecting the platform that best accomplishes your goals, ask yourself whether there's a viable path for users to experience it. For VR, almost no one will get to it organically or through some form of paid media. This is why the most practical branded experiences in VR are found on the showroom floor rather than the living room.

And while most smartphone users can enjoy AR in almost any environment, the best-in-class experiences that fully take advantage of devices' features require their own app. But when's the last time you downloaded an app? 51% of users haven't downloaded any in a month.

Another complicating factor to selecting the right platform is the fragmented landscape for VR and AR. Apple's ARKit and Google's ARCore are in an arms race, with each platform offering different features. This results in a need to optimize an experience for either OS, or for brands to choose which one they would like to support.

Thankfully, we can anticipate a solution to these problems with web-based AR and VR. Mozilla's Firefox Reality might make it easier for consumers to look beyond Steam and the Oculus Store—which both require approval before publishing—allowing for a more open environment.

Meanwhile, web-based AR would allow users to enjoy standardized, fully featured experiences directly through their browsers, no download needed. But browser developers aren't in a hurry to agree upon a WebAR standard, which means we'll have to wait a bit longer for a scalable, no-download AR platform. For now, Apple AR Quick Look and Google SceneView offer stopgap solutions by allowing users to drop an animated virtual object into their surroundings through a mobile browser. The tradeoff? These objects aren't interactive. No one's perfect!

AR and VR have rapidly iterated into new, sometimes fragmented, platforms. While each new development spurs a sense of hype and cool-factor, they also introduce new caveats: what works on one platform—or product—doesn't always work for another. The possibilities for brands are vast, requiring them to pinpoint exactly where their investment can best suit their goals.

***About the Author:*** *Samuel Snider-Held is a Senior Creative Technologist at MediaMonks, a creative and production partner, where he focuses on the intersection of AR, VR, AI and creativity. As a Creative Technologist working with global, award-winning brands, Samuel works day in and day out to bridge sales, creative and development, bringing the world's most creative and futuristic projects to life.*

**Peter Altamirano, Jam3**

# The State of Augmented Reality



Advancements in augmented reality have been steadily turning heads over the past few years. What started as a niche and futuristic technology has hit the mainstream to wide appeal, and creative approaches in deploying it have led to many magical implementations of AR in recent times.

Now, it's a rapidly swelling market – and while the rate of growth in the segment is certainly noteworthy, what's even more exciting is that we're just at the beginning of the journey. There is so much exciting innovation on the horizon.

To appreciate how far augmented reality has come, let's take a look at its history. The earliest origins of AR date back to 1862, when scientist and inventor John Henry Pepper presented an awe-inspiring illusion during a performance of Charles Dickens' *The Haunted Man*. The effect, which became known as 'Pepper's Ghost', used a combination of lighting and refraction to project an apparition on to the stage, seemingly out of thin air. Though Pepper's Ghost preceded digital technology by over

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a century, the same basic technique is still used today for creating AR experiences such as Tupac's appearance at Coachella festival in 2012.

The first example of AR as we know it today – augmenting a physical environment with digital objects or overlays – appeared in 1992 when Louis B. Rosenberg, a researcher at the US Air Force Armstrong Labs, built an experimental headset which provided virtual visual assistance for a physical task. Rosenberg's research proved proof of the conceptual viability of AR technology, and acted as a predecessor to commercial AR headsets that are on the market today, such as the Microsoft HoloLens or the Magic Leap One.

Headsets such as these are one of two distinct ways that we can experience augmented reality. There are many different headsets on the market currently, and as usual the big players want in: Facebook has confirmed that they're building AR glasses, and Apple is also rumored to have something in the works. But while it's true that we'll begin to see ever more compact and ergonomic AR headsets for commercial use, major advancements are likely still five or more years away. On the bright side, nothing stimulates innovation like a competitive market, which could lead to incredible developments such as liquid crystal-based AR contact lenses.

The other way that we can experience augmented reality is through screen devices like smartphones and tablets. This branch of AR is generally more accessible due to the ubiquity of screen devices, and because many people are already familiar with how it works due to the commercial successes of things like Pokémon Go or face filters on social media platforms.

There's a core distinction to be made between AR as experienced through a screen as opposed to a headset. When using a mobile device or screen, which mediate AR through a camera feed, their entire experience of the intersection between digital and real-world elements occurs within the enclosed frame of the screen. On the other hand, when wearing a headset, a user's field of view is unchanged from their usual POV, allowing the addition of virtual content to provide a far more immersive and authentic AR experience.

As with the output, the process of creating AR experiences is also a little different between headset and mobile. Building for headset usually means making an app using a game engine such as Unity or Unreal combined with a supported plugin released by manufacturers, or using the headsets native SDK. For mobile application, both Google and Apple have released their AR SDKs: ARCore for Android and ARKit for iOS. Both include support for game engines and the utility to make a fully functional AR experience, but if desired more specialized features can be added using Vuforia, 6D.ai or other AR cloud start-ups.

While these methods are standard for native AR – experiences that require an app download to support them – things aren't quite the same for website applications. Web AR experiences are generally coded using JavaScript alongside WebXR API and AR libraries such as AR.js, 8thWall TensorflowJS. The benefit of building a website AR experience over a native one is that it makes it more accessible to consumers by bypassing the requirement of downloading an app to try it. The trade-off is that browser-based AR doesn't offer the same level of performance nor the number of

features that can be applied to native AR.

Despite the minor drawbacks, web AR has taken a huge leap forward in recent times, and now both formats are viable in their specific and distinct uses. Longer storytelling experiences such as East of the Rockies suit native AR better because of its depth and functionality, whereas simpler, low-poly experiences that only require plane- or image-tracking like Portal Hunt or this Spiderman game are perfect for web AR.

On top of there being different ways to build and interact with AR, there are also different types of experience that can be created. One of these is known as world tracking. This category uses a 'marker' or logo present in 3D space to act as a kind of grounding point for the experience, where digital content is then placed in relation to it. While this is standard for many AR creations, advancements technological advancements have begun to allow for a marker-less approach, or what is known as SLAM (Simultaneous Localization And Mapping). A SLAM build doesn't require a marker since it detects nearby surfaces in a physical environment and uses them as reference points for the digital augmentation.

Another common format for AR experiences is human body tracking. The most widely used example of this is face tracking, because it provides remarkable accuracy and has a huge variety of applications. Face swapping, makeup application, and expression detection are just some of the near endless opportunities for face tracking AR – but while face tracking is pretty advanced, other human body parts (besides some breakthroughs in hand tracking) remain much harder to track.

Even though the technology has yet to catch up with our imaginations, there are big things in store for AR as innovation increases at an ever-accelerating rate. Exciting leaps forward, such as AR cloud, now stand to radically change how we interact with AR. From multiplayer, to perfect localization and occlusion capabilities, AR Cloud brings us a step closer to true mixed reality and the ability to create much more immersive AR experiences.

No less impressive are the hardware upgrades also in development. Oculus' Chief Scientist, Michael Abrash's predictions for AR and VR are well worth watching. Fascinating progress is also being made using audio instead of image for AR experiences, in particular with the latest AR audio sunglasses from Bose. The next few years will be full of incredible milestones as we witness AR redefine the user shopping experience, change our conceptions of entertainment and transport, and introduce ground-breaking applications to the education and medicine sectors.

So, while it's clear that AR has come a long way since Pepper's Ghost, the story is really only just beginning. Some of the best creative and technical minds on the planet are working to bring into reality experiences that past generations could never have even dreamed of, experiences that improve and enhance human capability down to the very way we interact with the reality around us. As Arthur C. Clarke once said: "any sufficiently advanced technology is indistinguishable from magic" – if that's true, it looks like we're well on the way to becoming professional magicians.

*About the Author:* Peter Altamirano is Technical Director at Jam3. He guides tech projects and teams, from frontend and backend to AR and installations. He loves exploring new technologies, bringing new

*ideas, prototyping, improving production processes and development. He is a creative technologist discovering new possibilities and making things happen. He has previously worked with brands like Google, Facebook, Adidas, eBay, Disney, and IBM.*

**James Kane, Two Bulls**

# Solving for X: Embracing the Unknown in XR UX



At Two Bulls, we've been working with AR since 2009 and it still feels completely new.

It's quite fun exploring these unknown spaces, feeling our way into a new model of interactivity. While early adopters are well-established, XR technologies are not widely deployed in the mainstream. We usually begin an engagement without a huge amount of information on how users interact with the technology.

So, we find ourselves with new users, an unexplored use case, a scary new piece of tech, a bunch of devs, some designers and a deadline to deliver some demonstrable value. We run with minimum viable process in tight, iterative cycles searching for a foothold in an emergent practice. Here are our stories…

### Know your user: The Weyo AR Platform

We were charged with building a platform for AR experiences aimed at 3-5 year

olds. The Weyo platform uses the front facing camera on phones/tablets to place interactive masks on the user. It's a well-known mechanic (HT Snapchat) but there were no similar apps on the market for our target age group. So, we began a series of prototypes followed by user testing with feedback immediately folded into updated UX flow and UI elements.

Our most crucial discovery: kids have short arms. The average arm length of a 3-5 year old is ~47cm, placing the phone closer to their faces. We built an onboarding process to assist in kids understanding how to position their face relative to the screen. It gave them an opportunity to have fun and get comfortable with the basics of the technology before launching into the full experience.

Prototyping and user testing revealed hundreds of insights, but our key takeaway was the value of the process itself. There was no other way to understand the complex interactions of the user, the device and the onscreen experience without observing it first-hand.

### Know your use case: Pediatric VR with Smileyscope

*Smileyscope* was conceived to assist in calming children undergoing medical procedures, particularly injections. Before approaching us, they had already run clinical trials creating a framework for the concept. It was a unique use case that immediately imposed the stringent requirements of a clinical environment. It also limited the use of our most effective weapon: prototyping. Without prototyping we had to lean on another framework: a use case confined to a known procedure.

We scoped out an experience in a peaceful underwater setting where looking at fish and other creatures' triggers moments of aural and visual beauty. We arrived at 4-5 versions of a user flow and took these to clinical professionals for their feedback. Through extensive interviews we arrived at our core insight: a successful product outcome would be driven by tightly weaving the in-fantasy narrative of the VR experience to the real-world experiences of the user undergoing a medical procedure.

For example:
- we integrated a calming breathing technique into the onboarding process by having the user test their "underwater equipment";
- we emulated the sensations of the medical procedure by having fish nibble up and down the user's arms while the nurse swabbed the injection site etc.

*Smileyscope* has subsequently been submitted for further clinical trials with outstanding results. In this instance it was a thorough analysis of the intended use case that unlocked a successful product outcome.

### Know your environment: NBN Magic Leap

In a mixed reality world, the complex interplay of users, user case, and technology is compounded by a third factor: real world environment. Building an experience for the Magic Leap required an understanding of the environment we were deploying to. We were on an exceptionally tight timeline for this project and a field trip felt like an extravagance. It wasn't. The team's time in the environment was the defining activity

in our process.

It immersed the team in the challenge and provided a form of ethnographic research. Trying to design MR UX without understanding the physical space around it would have been like deploying UI to a screen of unknown dimensions and resolution. It greatly assisted the team in rallying around a shared understanding of outcome. It also reminded us to go fast, but not so fast that we forget the user's context. Go there. Spend time there. It's worth it.

### Conclusion: know yourself

Our greatest fear as we approach UX in XR is that an ad hoc approach will lead to an ad hoc outcome. But designing for XR right now is not for the timid. We start with a clear goal and then plunge into iterating prototypes. In the face of crippling ambiguity, we encourage fearless exploration. The lines blur between Engineering and Design as scrappy on-the-spot conversations are rapidly sketched out and become working features. We lean on a hackathon culture—break and make and break and make—all heading towards an overarching goal, a shared vision, coupled with a spirit of experimentation. The fidelity improves on every pass.

*About the Author: James is the Founder and CEO of Two Bulls, a digital product agency with offices in Melbourne and Brooklyn. Two Bulls conceives the amazing, engineers excellence, and delivers every time. We've worked with the world's largest brands to reinvent the way they do things. James is proud of his work with Two Bulls and doesn't want to mention anything else.*

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# Team & Partners

## SoDA

*SoDA serves as a network and voice for entrepreneurs and innovators around the globe who are creating the future of marketing and digital experiences.*

**Lakai Newman,** Communications Manager

A graduate of Emory University, Lakai Newman came to SoDA from a NY-based digital agency where he focused on creating compelling content for a number of blue-chip brands. He serves as SoDA's primary steward and contact for communications, social media, and marketing efforts. Lakai also serves as Associate Editor and Head of Production for *The SoDA Report*, SoDA's biannual trend publication that features primary research, thought leadership, and case studies from top digital agencies, production companies, and client-side digital marketing executives from around the world. He considers himself a natural "creative" that is passionate about global travel, cooking, pop-culture, and all things digital.

**Jessica Ongko,** Designer

Since joining SoDA's Operations team in 2014, Jessica Ongko has been deeply involved with strengthening SoDA's brand and visual identity while collaborating with agencies around the world to design and create publications, event signage, and both digital and physical assets related to the work of SoDA. A graduate of the Graphic Design program from advertising portfolio school, The Creative Circus, you'll often find Jessica trotting the globe and working out of airports during long layovers.

*Microsoft is proud to be the official Digital Innovation Partner of SoDA. Today's clients are asking for comprehensive solutions that aggregate all of the newest technologies and connect the dots along their journey. By leveraging our Intelligent Cloud platform, agencies can build rich, innovative experiences that engage and delight customers. When creativity and technology work together to solve a client's business problem, the technology fades away and what remains is a spectacular user experience. At Microsoft our mission is to Empower every person and every organization on the planet to achieve more, and we want to partner with you to deliver this together. To learn more, visit www.microsoft.com.*

**Susie Gravette,** Sr. Partner Channel Marketing Manager

Susie Gravette is an Experienced Services Partner change agent with a demonstrated history of impact and passion for stellar partner experience. Skilled in Enterprise Software, Go-to-market Strategy, Strategic Partnerships, Microsoft Products, and Software as a Service (SaaS).

**Jaclyn Stiles,** Partner Development Manager

Jaclyn Stiles is a partner development manager on the Intelligent Cloud team at Microsoft. She works at the intersection of emerging technology and consumer experience, bringing together design consultancies and digital innovation across the enterprise. Jaclyn has previously spoken about cloud-native app development, how the millennial experience has shaped a generation of technology users, and the impact these have had on brand engagement strategy.

**Doug Gould,** Manager, Strategic Partnerships & Procurement

Doug has spent his career at the intersection of agencies and technology; using emerging tech to create impactful consumer experiences. Based in NY - his passion for emerging technology has brought him to Microsoft, where he builds partnerships and programs with top global digital agencies around experience innovation using Conversational AI, Mobile, Augmented Reality/Virtual Reality and Internet of Things.