

Case Study

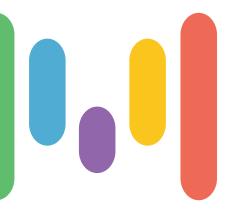
CEEK VR

The VR Market Has Turned a Corner: How CEEK VR Is Leading the Pack: How CEEK VR Is Leading the Pack

The Plug

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The VR Market Has Turned a Corner: How CEEK VR Is Leading the Pack: How CEEK VR Is Leading the Pack



For Mary Spio, it all comes back to the metaverse.

The term refers to a collective virtual shared space, created by the coming together of virtual reality, augmented reality and the internet. Spio's company, CEEK VR, aims to bring this promise to the world, all from the comfort of people's own homes. For the former rocket scientist, not even the sky's the limit.

Launched in 2018, CEEK is centered around a platform of immersive 3D experiences, including the red carpet at San Diego Comic Con, Dwayne Wade's sports camp and concerts by Katy Perry, Demi Lovato and Steven Marley. The company also produced and distributed the Bob Marley 75th birthday tribute concert, which became Billboard's biggest livestream of 2020 with 9.4 million views in 24 hours.

Spio has also expanded the company's ecosystem to encompass everything needed to enjoy those experiences to the fullest: VR goggles, headphones, and blockchain technology to tokenize its content and allow content creators to track viewership and offer additional merchandise.

Over the past year and a half, as COVID-19 lockdown restricted people around the world to their homes and prevented artists, athletes and others from offering live experiences, Spio has watched interest in VR grow by leaps and bounds. While she wouldn't describe it as "mainstream" technology yet, Spio also believes the industry has turned a corner, creating myriad growth opportunities for CEEK and others in the space.

"Once people experience content within VR, they don't want to go back," Spio told ThePlug. "I say that looking at content in 2D is like looking at the world through a straw. Once you remove the straw and see life as it really happens in 360, most people don't want to go back to looking at life through a straw."

The Beginning

Mary Spio was the kind of kid who always needed to know how things worked. "I was the kid that always tore the radio apart, I wanted to know how it worked, how, how, how, how — I drove my parents crazy.," Spio said in a 2015 $\underline{\text{interview with}}$ $\underline{\text{Miami Herald}}$. "she

Born and raised in Ghana, Spio moved to Syracuse, N.Y. on her own as a teenager. At the time, her idea of success was moving up from manning the fry station to cashier at the McDonald's where she worked, but little did she know how the books she had just started reading about successful entrepreneurs would reshape her ambitions.

"My first book was Sumner Redstone's A Passion to Win - I read it over and over and over and over, I could connect to something in there - overcoming challenges," Spio said in the interview. "I also read about Bill Gates. As I read about these people who I admired, I thought there was more that I could do. It gave me the courage to try new things."

Eventually she joined the Air Force, where she served for six years. During that time, an Air Force engineer noticed that she was good at fixing electronics and suggested she look into getting an engineering degree. "I did and it was the best thing I've ever done," said Spio, who studied at Syracuse and received a prestigious National GEM Consortium Fellowship to pursue a master's degree at Georgia Tech.

She worked for a satellite communications company and then for Boeing, where she developed and patented a way to distribute feature films digitally using satellites. Spio also holds a patent for technology that allows for demographically targeted distribution of digital media, which, for example, allows distributors to show alternate endings to content. Her inventions helped George Lucas release Star Wars Episode II: Attack of the Clones as the first-ever digitally distributed motion picture – technology that is now the industry standard.

In 2005, Spio made the jump into startups, launching an online video platform, Gen2Media, that counted Coca-Cola, Microsoft Xbox and the Tribune News Company among its customers. Working in a field where she was often among the few Black women, Spio said she had previously experienced racism and sexism, but that the challenges increased when she became an entrepreneur trying to raise capital.

"When I launched Gen2Media, we were doing a million before beta. We had an investor come in to help us raise capital — and he said he was having a hard time because no one was writing checks to black women and he needed a white male at the helm. Then he got my other partners (they were all equal partners) on his side — I was forced out of my own company [in 2010]," she told the Herald. "That was the toughest thing I have gone through, and it happened not because of something I did, but because of who I am. I am a black woman and that is not going to change."

I was the kid that always tore the radio apart, I wanted to know how it worked, how, how, how — I drove my parents crazy.

The Beginning cont.

For the next two years, Spio spent time with her family, wrote a book (It's Not Rocket Science: 7 Game-Changing Traits for Achieving Uncommon Success) and did consulting work.

As a participant in the Google for Entrepreneurs program, Spio visited Facebook and tried on the Oculus Rift VR goggles. At the time, VR was primarily being used for gaming, but Spio had a more expansive view. That was when the vision for what ultimately became CEEK was born.

"I've always been a 3D fan; when I tried my first VR headset, the experience was so awesome, I wanted to use it for everything - movies, music concerts, sports, training, healthcare, events and basically everything," Spio said in a March interview on Medium. "CEEK was born because no one was using VR in this way, and I had many music artists who wanted to extend their reach to fans around the globe without having to physically tour every corner of the earth."

MEDIA CONTENT - movies, music 146 106 112 BOMS **ARCHIVE TELECINE** VAULT everything DATA BASE 132 138 OUTPUT **PROCESSOR** CONDITIONAL (DIGITAL **UPLINK** ACCESS MGMT SERVER TAPE OR SYSTEM MEMORY DISK) WATERMARK 128-COMPRESS TO DISPLAYING MODEM ENTITY 108 **ENCRYPT** 140 PREPARATION SERVER TO DISPLAYING ENTITY 108 DATA VAULT -116**FACILITY**

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How it Works

CEEK is a play on the word "seek" as an homage to people like Spio who seek knowledge in addition to entertainment through virtual and augmented reality. She started the company in Miami, where it still has offices, but is now based in Chicago. CEEK also has offices in Los Angeles and London.

She has grown CEEK into an ecosystem, with its VR streaming service at the center. The lifeblood of the service is streaming concert and music experiences -- "think of us as the Ticketmaster for VR experiences," the company said in **a Medium pos**t, also promising at least one "megastar" release per quarter. Customers who download the app are teased with the chance to immerse themselves in U2 performing at the Rose Bowl, Lady Gaga at Madison Square Garden and Katy Perry live in Rio.

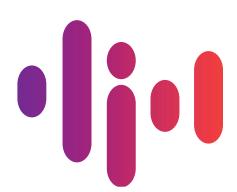
"Adele did a show at Madison Square Garden where 10 million fans tried to buy the 100,000 tickets available. CEEK was created to help artists like Adele sell virtual tickets to the 99% of her fans who couldn't attend the show.," Spio wrote <u>in a Medium post</u> in October. "Guns n' Roses sold one million tickets in 24 hours; they can't physically add any more locations, but with the Guns n' Roses show on [CEEK] fans can virtually be there. We help real events generate revenue virtually."

Consumers pay for the content once and can access it across multiple devices, including the Oculus, Microsoft HoloLens, the Sony Playstation VR, and through CEEK's app available on Apple's app store and Google Play. Customers who don't have VR headset can move their smartphone screen around to get the full 360 view. Registration on the platform and some of the experiences are free. The rest is accessible through a monthly subscription or through one-time fees. Customers can access the content across any of their devices.

While COVID-19 put a temporary end to live touring, artists who turned to VR as a substitute come to studios around the world to film what viewers can eventually find on CEEK, Spio said.

"The artist sets up so it's an intimate experience, you feel like you're in the environment with the artist," Spio said. "But also because the app allows you to view content in social mode, you can see other people watching the concert with you. We have additional updates coming where you can choose if you want to view with other people, if you want to view alone or if you just want to view with your friends. It allows you to bring people into the environment so you can feel the energy. It feels intimate, but it's also a shared space with as many people as you want."

Although Spio wanted CEEK to be device agnostic, allowing anyone access to the content no matter their hardware or economic situation, she has also developed a CEEK VR headset and 360 headphones that consumers can use to access her platform's content or that of others.



How it Works cont.

"The core of our business is the metaverse," Spio said. "Everything else around it is enabling people to be able to use the metaverse."

She also created her own headset and headphones to solve problems or quirks of existing technology that were creating a less-than-optimal experience for Spio when she was consuming VR content. Spio told <u>Moguldom</u> she used to get headaches from VR headsets because "they were created by men for men."

"For a woman, the headset would really pull your eyeballs apart, giving you this serious headache," Spio said. "The lenses, the focal distance and focal length are factors that weren't really considered for women. All of these things were corrected with the headset I created to make sure that it's comfortable and enjoyable for men, women and children."

The patented CEEK headset costs \$99, compared with \$299 or \$399 for Oculus Quest 2 goggles, and is compatible with most smartphones. Spio has also developed \$250 360-degree wireless headphones, an idea that grew from her experience using other devices and having to constantly look back within the environment because she couldn't hear what was behind her.

"It was an uncomfortable experience," Spio said. "Creating the 360-degree headphone allows you to hear all around you. If someone stops behind you, you get an audio cue even when you're gaming on a PlayStation 4."

When CEEK launched, revenue came primarily from sales of the headphone and headset, according to Spio. Now, and particularly over the last 12 months, revenue has been driven by people coming to the platform, buying and consuming content – and some are even doing so in 2D.

"When you go to developing and emerging worlds, everything has to be able to be accessed through mobile," Spio told Moguldom. "And the streaming has to be high quality and fast, but also accommodate the needs of not just the U.S. The U.S. is only 4% of the world. What about the other 96%?"



The Blockchain

CEEK has implemented blockchain-based technology for accessing its offerings and for artists to track content viewership, tokenize merchandise and track sales in real time.

The company created its own crypto token based on the Ethereum platform that customers use to buy content and merchandise. It works similar to the way that gamers make in-app or in-world purchases to advance or gain a wider set of tools or advantages within the world in which they are playing – which is why Spio believes that although consumers may not know exactly how the blockchain or cryptocurrency work, they are comfortable with the idea of using it.

"People are already using tokens, whether you're on Roblox or Fortnite, you're buying coins to make payments," Spio said. "The big difference is ... if I spend \$6,000 on Roblox, I can buy a house [in the game], but I can't do anything else with it. Whereas, by putting everything on the blockchain maybe after I've outgrown Roblox I can take my money out and get it back or do something else with it."

There are global icons around the world who are getting paid close to nothing. They do billions of streams, but what they don't know is that [many platforms'] payments are based on ads.

Spio said another advantage is that CEEK pays its content creators on the platform using tokens. The company partnered with Microsoft to develop a distributed ledger blockchain built on Microsoft's Azure cloud. Content creators can track every "smart ticket" sold, create experiences within their VR experiences that become "merchandise" that costs an additional charge and get royalty payments based on

the ledger.

Using the blockchain brings equity to payments for streaming experiences, according to Spio. Whether a content creator is an average person living in Mexico or Ethiopia or if he is Justin Bieber, the payment is based on the number of streams and it comes to them in the same type of currency.

"I find that the attraction for the Justin Biebers and Lady Gagas and Billie Eilishes is that they can extend the reach of their content because they can't tour everywhere," Spio said. "They're not going to North Dakota, they're not going to go to a small town in Essex in the U.K., but through VR they are able to reach all of their fans and they can make money they would otherwise be leaving on the table."

Last year, BTS made around \$20 million for a single night's live streamed show, more than the band might make in more than a year of touring, according to Spio.

"It makes sense to put more and more effort into a virtual tour as much as real tours and maybe it allows artists to cut back to maybe only 10 physical locations and the rest can be broadcast online," Spio said.

CEEK's technology also makes financial sense for artists who aren't known world-wide because they can expand their reach while generating revenue directly from their fans.

"There are global icons around the world who are getting paid close to nothing. They do billions of streams, but what they don't know is that [many platforms'] payments are based on ads," Spio said. "This is an equitable system.... The stars in the U.K. and U.S., places where artists are getting compensated, still want transparency,



they still want to know that they're getting paid for what has streamed and then expand their reach. For everybody else, it's a no brainer."

By the Numbers

In a column on Entrepreneur.com, Spio said investors would tell her they wanted to put someone else in the role of founder "because I'm not going to go and raise capital in Silicon Valley with a black woman. It's too difficult.'

"Why should that matter?" Spio would say.. "I've created patented technology for Boeing. I've put a satellite in space with my signature on it. Over and over again, you are denied opportunities because of the color of your skin."

Last spring, Spio told Mogoldum CEEK has only just gotten started raising money from investors. She said revenue at that time was about \$3.5 million, and that the company had raised close to \$6 million. In a Q&A with Startup Grind, Spio said the company has received funds from celebrities, angels and funds such as Black Star and BATIF.

CEEK is also part of several corporate startup programs and accelerators, including Microsoft for Startups, Oculus VR, Amazon Launchpad and RetailXelerator. The partnership with Microsoft allowed CEEK to migrate to the

to offer the incentive of a gift card for anyone who purchases its VR headset.

"Solving problems facing major companies with your startup is an avenue for funding growth for consumer-facing startups, not just enterprise applications," Spio told StartupGrind. "I do not suggest it completely replaces raising capital, rather mega-partnerships can provide the runway needed to keep your company growing and the traction to attract additional investors."

The company relocated to Los Angeles in early 2019, by then having facilitated more than 10,000 loans and raised more than \$3 million.

tech giant's cloud service and become part of its marketplace with virtual meeting spaces and live streaming. Funding from Facebook Oculus was "instrumental," in

creation of CEEK's early content and CEEK also received valuable technical advice for creating VR content, Spio told Startup Grind. Amazon Launchpad provided the company with cloud credits, while RetailXelerator assisted with establishing pricing and retail relationships for CEEK's VR headset and headphones.

"As a Black woman and as a woman, you don't have the luxury or the privilege of trying to figure it out as you go along," Spio told Moguldom. "You have to be very innovative, and you have to keep your finger on the pulse of what's realistic, what's real. This has allowed us to continue to be around in spite of not getting to raise hundreds of millions of dollars (like) a competitor that recently had a fire sale because they didn't have a business model."

Million in Revenue

CEEK has also grown through the strength of strategic corporate partnerships, including a relationship with Universal Music that grants rights to live performances from the music company's artists. The company has also partnered with NBA 2K esports teams — CEEK provides the teams with equipment and in turn gets access to branded signs during games and is working with both teams to create feature content for its platform. The partnership with Apple allows CEEK

The Market

Prior to COVID-19, Spio would log into different VR apps and see just 500 other people using them at the same time. During the pandemic, she would try to access those same apps and could not get in because there were 50,000 concurrent users.

Spio said in the past year and a half CEEK has gone from hundreds of thousands of views to millions. A <u>recent report</u> by Acumen Research and Consulting found that the global VR headset market is expected to reach around \$44.2 billion by 2027, a compound annual growth rate of nearly 30 percent over seven years. The growth is expected to be driven by increased adoption in North America and the technology's growing use in new sectors, including government and health care. **According to a May 2021 report by ResearchandMarkets.com**, the global virtual reality market for both hardware including headset sensors and software including new applications is expected to be \$80.16 billion by the end of 2026, up from \$23.7 billion in 2020.

The pandemic has also accelerated trends that were rapidly changing how the music and entertainment industry earns its money, creating a market that is hungry for CEEK's resources and expertise. According to the World Economic Forum, the global music industry is worth about \$50 billion, half of which comes from live shows. Artists get about 75 percent of their income from live shows, although a growing amount of that revenue (60 percent, vs. 26 percent in 1982) is going to the biggest-name performers. Streaming made up just 9 percent of revenue in 2014, but it accounted for 47 percent in 2020.

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The Turning Point

While market trends were moving artists and others toward offering livestreams and 3D experiences for fans who couldn't be there in person, that suddenly became the only option in early 2020 due to the COVID-19 pandemic.

Interest in creating VR experiences increased both from existing partners and new clients, according to Spio. Standup comedian D.L. Hughley had already signed with CEEK to create a real-time VR broadcast for his live shows – then suddenly there were no live shows.

Instead, CEEK worked with Hughley to create what it called the first-ever virtual reality standup show, which premiered on the app in May 2020. The company pivoted quickly to create a version of its studio experience that could be accomplished in-home. What Hughley described to Entrepreneur.com as a "spy briefcase" was sent to his home to create the audio-visual setup needed to do the show.

"Running this business suddenly has a different calling than it might've before," Spio **told Entrepreneur**. "We've had to accelerate and run faster, but now we're capturing the demand that's there, and it's wild."

Another partnership that reaped benefits during the pandemic was basketball star Dwayne Wade's Celebrity Sports Academy celebrity sports camps. CEEK had collected content and footage from the camps in 2019 that was meant to complement what it would do the next year. Instead, the footage became the backbone for taking the camps virtual during the pandemic. Registration for the 2020 camp included access to 24 training videos, messages and live video check-ins with pro athletes and coaches, and access to CEEK's technology for the participant's computer, tablet or phone (VR headset not required.)

CEEK worked with Hughley to create what it called the first-ever virtual reality standup show, which premiered on the app in May 2020.



How CEEK VR Thinks Differently

Part of what allowed Wade's sports camps or Hughley's comedy show to reach some of the same audiences who would have shown up in person is that CEEK is platform-agnostic. It's all part of Spio's strategy to grow the content available in the metaverse enough to begin to meet its vast potential - and to bring those experiences to anyone in the world, no matter what technology or resources are at their disposal.

"I want us to get into as many places as possible," Spio said. "For most people ... buying a \$3,000 gaming computer and then a \$1200 VR headset is just not practical.... Ultimately, we want to get to a billion users, and to do that, users have to have the flexibility of consuming the content in a variety of ways."

The promise of VR and AR aren't solely limited to gaming and entertainment, Spio said. She wants to see the metaverse become part of people's daily lives, which is why part of the future of CEEK is partnerships with conference planners, large events like TedX, and businesses and government organizations who want to make training videos.

"We're seeing more and more events coming onto our platform because you can walk around, and sit and stand and walk on stage as you would in person," Spio said. "We had a company that actually used it for a fashion show and there were different people walking up and down the runway. Our goal is to continue to find more and more ways for people to use the platform."

