

As Physical and Virtual Worlds Converge, Digital Markets Emerge

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The Instagram influencer Lil Miquela has amassed three million followers through a blitz of lifestyle posts showcasing her posing in a variety of eye-popping outfits, eating tacos, hanging out with other influencers, and engaging in other activities typical to the social media platform.¹ But the most remarkable part of Lil Miquela's career isn't her number of followers or brand ambassadorships, it's that she's a complete work of fiction created by Los Angeles-based digital startup Brud.² She's also a possible harbinger of a future that doesn't just blur the line between the digital and physical worlds, but obliterates it completely, creating a new understanding of goods and markets for forward-thinking investors.

Living in the Digital World

Lil Miquela's success—she's brand ambassador for Calvin Klein, Prada, Samsung, and is represented by the Creative Artists Agency—rests on how much value young consumers place on goods and people that exist purely in the digital realm.³ While many millennials (the generation born between 1981 and 1996) already show a willingness to invest time and money in digital relationships, 56 percent of Gen Z (1997-2012) told a survey conducted by WordPress hosting company WP Engine that they have a friend they only know online, and 58 percent say they can't go longer than four hours without being online before feeling uncomfortable.⁴

The digital familiarity of both millennials and Gen Z, or Zoomers, have already created big go-tos in the market that would have been unthinkable 20 years ago. Twitch, the livestreaming service now owned by Amazon⁵, claimed users watched 2.2 billion hours of streaming in March 2021 alone. That compares to 1.7 billion in March 2020 and 379 million hours five years ago, in 2016. Today, analysts estimate Twitch's

valuation to be as much as \$15 billion, a testament to the ability of digitally native consumers to shape future markets.⁶

The Birth of the Digital Goods Marketplace

While Twitch, and livestreaming technology in general, has established its business and cultural bona fides, we believe that the digital life Gen Z (and Gen Alpha behind it) seems poised to embrace will go much further in converting physical experiences to the digital world. This is already happening with live music concerts, notably as part of the online game Fortnite.⁷ Major acts such as hip-hop artist Travis Scott and pop star Ariana Grande have held virtual concerts within the Fortnite game, allowing more than a million attendees to interact with each other and the artists in ways a physical concert couldn't replicate.

To an outside observer, one of the more unusual sights of the Fortnite virtual concerts is the sea of digital avatars, customized by individual players to express their unique tastes and identities. In this virtual world, seeing Iron Man rocking out next to someone with a giant hamburger for a head isn't an uncommon occurrence. But this bizarre mishmash also reveals the digital goods marketplace underpinning much of the experiences in today's most vibrant virtual worlds. Gamers spend billions of dollars each year creating unique digital avatars by purchasing skins (essentially a model representing the player in the game) and other customizable add-ons that make the avatar stand out.

For the most part, these avatars aren't persistent across different games or virtual worlds. The fact that the digital goods market is already so robust without the existence of a truly digital world bodes well for the future vendors of digital goods, in our

opinion. Another trend working in favor of digital goods is that members of younger generations are as likely to buy a good online that compliments their identity as they are in person.⁸ The reasons for this vary. The greater accessibility of these digital goods also gives them a possible advantage over the physical version. For some the purchase of a digital version of a Rolex is an affordable luxury.⁹ Others may view it as greener for the environment and a better match to their values.

The breakdown between digital and physical worlds isn't only happening to gamers—Facebook recently announced the beta launch of Horizon Workrooms, a virtual office for avatars to gather and collaborate.¹⁰ Designers are already attending events such as Paris Fashion Week through virtual reality (VR), and virtual tourists can roam the world without ever leaving their front door. All of these developments point to a future where the physical and digital converge into a new way to experience the world—and with it, new investment opportunities.

Investing in a Digital World

So how should forward-thinking investors interested in the digital goods economy get their foot in the door? To create the kind of immersive digital experiences that can drive future markets, a whole host of different technologies need to come together.

Take the digital influencer Lil Miquela mentioned earlier. In her current iteration, she depends on sophisticated facial animation technology, 3D modeling, advanced image manipulation and more to perform all the functions followers expect from an Instagram influencer. Now imagine a new, redesigned Lil Miquela capable of individually chatting with her millions of followers whenever they wanted. That would require sophisticated machine learning and artificial intelligence to work, an entirely different class of technology than she currently deploys and likely developed by a separate company specializing in augmented reality (AR). Now try to envision a VR platform where you can go shopping with Lil Miquela for outfits inspired by her style, and all the marketing and payment technologies supporting that activity. Lil Miquela wouldn't be a mere Instagram model anymore, but an engine for innovation and commerce.

The various technologies needed to strengthen the digital goods ecosystem already exist as investment

options, albeit at different stages of development.

We can sort the investment opportunities in digital life into three broad categories:

- **Virtual Spaces:** These are the companies that provide the platforms where users participate in digital life with their digital goods. Today many of these platforms are video games, though increasingly VR and traditional digital platforms where the main purpose is to simply socialize with others have appeared in this category.
- **Virtual Goods and Beings:** Companies in this space focus less on providing platforms where users interact with one another and more on the buying and selling of digital goods. In other words, a company in the virtual spaces category might create a digital concert, while the companies in this category would sell the outfits users will wear to that concert. Companies that create and manage digital personas, such as Lil Miquela, also fall into this bucket.
- **Virtual Infrastructure:** Any company with a technology that supports the virtual spaces or marketplaces belongs in this category. Examples of the technology can range from the software engines that power major video games to better 3D modeling to ad placement in virtual spaces.

Eyes Wide Open

We believe investors should be well aware of the challenges when approaching this space. While some of the companies we consider for investment are established organizations with longer track records, we have observed that much of the cutting-edge work is being done by private, small tech startups. Many of these early-stage companies have developed proprietary technology enabling new and exciting ways of interacting in the digital world but may struggle to find the right application for the technology or the right go-to-market strategy.

In some cases, the technology developed for use in the digital life space is still too nascent to gain widespread acceptance. Virtual Reality offers the potential of highly realistic, immersive experiences, but still has challenges around ease of use and comfort. Augmented Reality (AR) overlays digital information on top of the real world and has been used successfully in apps like Pokémon Go, however, is still relatively low quality and inaccurate when

used for home design, furniture placement, or clothing try-on.¹¹

But for those willing to accept those risks and setbacks, we believe select businesses can offer potential opportunities for long-term investors.

To find these early-stage businesses, our public and private market research teams collaborate, sharing findings across coverage areas, including ecommerce, media and entertainment and mobility, that may offer valuable insights into the evolving digital goods market and the opportunities within it.

In evaluating businesses, we tend to rely on some of the parameters set out by our six investment criteria.

- **Management:** We carefully evaluate the management teams, placing heavy emphasis on the caliber of the founders, especially in early-stage businesses. Throughout our diligence process we aim to meet the management team, understand the individuals' backgrounds, and get a clear picture of their vision for the company. In early-stage businesses we tend to favor founders who have track records of success and industry experience related to the business they are running.
- **Technology:** We look for companies with differentiated technology and a unique value proposition. Many founders have dedicated years to building their technology products, and we do a detailed analysis of the product and technical architecture.
- **Business Model:** Digital goods can be a challenging focus area because many of the products are in the early stage of consumer adoption. Thus, we are challenged to envision what a digital future will look like and the kinds of business models that can best sustain such companies in the long run. While we are still in the early stages of investing in this space, we believe that these businesses offer interesting opportunities because they are providing the infrastructure for the virtual world and are driven by software-as-a-service and usage-based business models.

Riding the S Curve

We also believe that investing in businesses at the early stages of development, not only makes

a difference to a company's potential success but allows us to participate in the potential growth of the business during all phases of development, from founding through growth, IPO and beyond.

We like to remind investors of our belief that it is much more important to be there than to be getting there. In this era of fast-paced digital innovation, we believe the opportunities created by early-stage businesses that can envision and create the future, have never been more compelling.

¹ Instagram is a photo and video sharing social networking service that is owned by Facebook, which is owned in our Global Growth and Select Growth strategies as of May 18, 2012.

² Brud is a virtual influencer startup owned by Drapper Labs and is not held in any Sands Capital strategies.

³ Calvin Klein, owned by PVH; Prada S.p.A.; Samsung; Creative Artists Agency LLC and WP Engine are not held any Sands Capital strategies.

⁴ A custom 30-question Gen Z survey was designed collaboratively by WP Engine and The Center for Generational Kinetics and conducted in the U.S. (1,252 U.S. respondents ages 14-59 including a 250-person oversample of Gen Z (ages 14-23), Western Europe and Australia. Survey was conducted online from September 19, 2019 to October 1, 2019. <https://www.marketingdive.com/news/gen-z-wants-brands-to-be-fun-authentic-and-good-study-says/581191/>

⁵ Twitch is a video live streaming service owned by Amazon, which is held in Select Growth as of July 29, 2015, and Global Growth as of October 10, 2015.

⁶ <https://www.cnbc.com/2020/06/16/amazon-media-assets-worth-500-billion-almost-as-much-as-aws-needham.html>

⁷ Fortnite was developed by Epic Games, which is not held in any Sands Capital strategies.

⁸ <https://www.marketingdive.com/news/gen-z-wants-brands-to-be-fun-authentic-and-good-study-says/581191/>

⁹ Rolex SA is not held by any Sands Capital strategy.

¹⁰ Facebook is owned in the Select Growth and Global Growth strategies as of May 18, 2012.

¹¹ Pokémon is a series of video games developed by Game Freak and published by Nintendo and The Pokémon Company under the Pokémon media franchise. Nintendo and Pokémon Company are not held in any Sands Capital strategy.

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Christy joined Sands Capital Ventures in 2020 as a Senior Associate. She identifies and evaluates investment opportunities in the technology sector. Prior to joining Sands, Christy was a film producer and photo editor with over ten years of experience creating content for television, film, print, and web. She has worked for Science Magazine and on television shows and documentaries for Smithsonian Channel, Travel Channel, National Geographic, and Animal Planet. Christy has also been a small business consultant advising small businesses on website design and marketing content. Christy received a BA in English from Georgetown University and a MBA from the Georgetown McDonough School of Business.



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Michael joined Sands Capital Ventures in 2018 as a Partner. He has more than 20 years of experience investing in, managing, financing, and developing innovative enterprise technologies. Prior to joining Sands Capital Ventures, Michael was a Partner at In-Q-Tel, a strategic investor in early-stage businesses in the artificial intelligence, computer vision, data analytics, cybersecurity, novel materials, and other spaces of potential high impact on national security. He also was the founder and President of Mobile System 7, a cybersecurity company. Previously, Michael served as Managing Director at The Hunter Capital Group, a specialized investment bank, and Senior Vice President at Friedman, Billings, and Ramsey where he focused on IPOs, M&A advisory, and private placements. Michael received a bachelor degree in Business Administration from Salisbury State University and a MBA from San Diego State University.

At Sands Capital, we are active, long-term investors in leading innovative growth businesses, globally. Our approach combines rigorous fundamental analysis with inspired thinking to seek innovative, high-quality businesses that are creating the future. By enabling our clients to participate in the growth of these businesses, our mission is to add value and enhance their wealth with prudence over time.

ALL-IN CULTURE

We are one team dedicated to one mission and one philosophy. As a fully independent and staff-owned firm, we attract and retain strong talent, focus on long-term outcomes, and are highly aligned with our clients' interests.

INSIGHT- DRIVEN

Businesses that can build a sustainable advantage are few and far between. To seek them, we apply six criteria to separate signal from noise, identify what matters most, and construct differentiated views on tomorrow's businesses, today.

GLOBAL PERSPECTIVE WITH LOCAL UNDERSTANDING

Innovation-driven growth knows no geographic boundaries. Neither does our research team. We are hands on, on-the-ground, deeply immersed in the ecosystems in which our businesses operate.

HIGH CONVICTION FOR HIGH IMPACT

All our strategies concentrate investments in only our best ideas and avoid mediocrity. With the intent to own businesses for five years or longer, we seek to create value for clients through the compounding of business growth over time.

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