The Everything Token

How NFTs and Web3 Will Transform the Way We Buy, Sell, and Create

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EXCERPT

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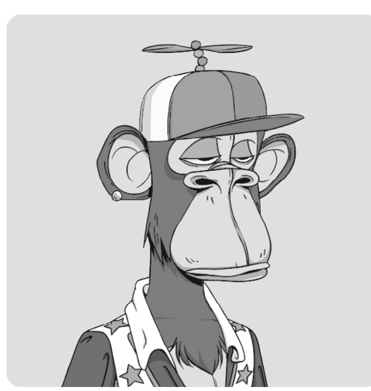
Introduction

PLANET OF THE APES

In March 2022, one of the then-hottest startup companies on the planet raised $450 million in an oversubscribed investment round valuing the company at $4 billion. Investors were champing at the bit to fund Yuga Labs, a unicorn startup whose premier product was . . . digital pictures of cartoon monkeys!?

The pictures weren't made by a famous artist. In fact, while their individual visual features had been hand-drawn, the images themselves were created by a computer process. An algorithm randomly combined features like fur, clothes, and facial expressions into an image looking something like this:



Popular sites like Quora and Reddit were flooded with people asking versions of "Why would anyone pay real money for a random picture of a monkey?" Some commentators pointed out that the pictures technically weren't of monkeys at all—they were of apes, which are a different kind of primate—but that didn't do much to clarify why anyone would think they might have value.

Even more baffling, in a world where most consumer startups race to acquire as many customers as possible and tout their "total addressable market," Yuga had only created ten thousand of the images, *and committed to never produce any more.*

The whole premise seemed ridiculous. But even more absurd on its face was that the pictures weren't quite the product at all. Indeed, they were publicly available for anyone to view or download on the internet. What Yuga had really "sold" was just a series of digital records—*non-fungible tokens (NFTs)*—which associated specific people (or rather, their computer accounts) with specific images in the collection.

That's right: investors put hundreds of millions of dollars into a company that had sold ten thousand digital records linking computer accounts to public primate pictures.

Moreover, while Yuga had *created* these digital records, it didn't even control them. Unlike the tech platform behemoths that closely guard every bit of their data, Yuga's NFTs were stored on a public decentralized computer network called a *blockchain*, so once they were created, the NFTs were in effect out of the company's hands. Yuga couldn't control who bought, sold, or traded them—much less the market price. And the public nature of the blockchain meant that wherever the images went was tracked for the whole world to see.

The whole phenomenon left many observers scratching their heads. The images weren't much like the type of art that people often paid millions of dollars for—and again, to the extent that anyone "bought" or "owned" one of these images at all, what they actually got was the digital record, i.e., the associated NFT. People could buy and sell NFTs just as they might trade Pokémon cards or oil futures, but NFTs are otherwise quite different—after all, with futures you eventually own the commodity, and with Pokémon you get a card that can be used to play a game.

Some thought NFTs were at best a bizarre fad, and at worst some form of gluttonous excess—another ridiculous thing for people who already have everything to spend money on. (Plus, as a way to do business, blockchain-based products themselves were often met with deep skepticism, owing to the speculative nature of the emerging crypto industry, as well as the fact that some people associated cryptocurrencies with money laundering and fraud. More on that soon.)

To be fair, you might be thinking, *if a company can successfully sell a product that bizarre, they must be doing* something *clever* . . . but that just kicks the banana a little bit farther down the road.

Why would anyone *pay money for a digital record associated to a picture, primate or otherwise?*

It's because what they were buying was, in truth, far more than just a digital record. The NFTs were the foundation of what was emerging into an incredibly successful digitally-native, community-based brand—one of the first of its kind—called the Bored Ape Yacht Club.

Having one of the tokens was your ticket in: NFT holders "owned" their Ape images and were even given the right to use the associated intellectual property in their personal business ventures. Meanwhile, Yuga Labs was continually building new rewards and features on top of the NFTs—everything from holders-only online games to live events like an annual music festival. Yet that comprised only a fraction of the activity around the tokens: both holders themselves and third parties introduced their own forms of utility and benefits for the Bored Ape NFTs—everything from exclusive products and merchandise to large-scale immersive puzzle game experiences. Thus as the Bored Ape Yacht Club's public prominence grew, token holders shared in that success, both because it raised the value associated to the individual Bored Ape NFTs (there were only so many of them, after all), and because it expanded the range of valuable opportunities available to holders.

As a result, for many, being a Bored Ape NFT holder became part of their personal identity and way of life. They integrated their Ape images into their digital profiles—which helped raise brand awareness—and they plastered Bored Ape posters on their walls. The network of Bored Ape Yacht Club holders became a true club, a global community of brand enthusiasts, many of whom went out of their way to help one another, and in effect became a decentralized marketing arm for the Bored Ape brand. And in parallel, Yuga Labs evolved, introducing new types of products and experiences built around the Apes, with the NFT holders benefiting from exclusive or preferential access.

All of this made more and more people want to "Ape in" and join the Club—and that, along with royalties collected on NFT secondary-market sales, increased the company's revenue streams at Ape-neck speed. The excitement was so palpable that Yuga Labs made $90 million selling a second NFT collection—Mutant Apes—just a few months after launch. As new people joined the Club, the opportunities afforded by the network grew—and people took it upon themselves to organize everything from local Bored Ape meetups to weekly online "Mutant Monday" celebrations.

The feedback loop from token ownership to community brand-building took Yuga from a small startup to a multibillion-dollar unicorn in less than a year. That growth doesn't seem to have been an accident, either. Even as the broader NFT market experienced ups and downs in 2022 and 2023, Yuga continued to sustain success through NFT sales, secondary royalties, merchandise offerings, partnerships with major brands, and sponsorships for live events. In one instance, Yuga created a short-term gaming experience that expanded its holder base by 40% and raked in $2.2 million from in-game microtransactions. Shortly after that, a digital-physical merchandise partnership with Gucci made $5 million from the sale of a limited-edition pendant. And, in March 2023, the company added a fine art line that generated roughly $16 million in revenue. And these examples aren't exhaustive—in just its first years, Yuga's total revenues reached hundreds of millions of dollars.

This consistent growth alongside recurring revenue streams made Yuga so attractive that top gaming executives from Activision Blizzard (creator of World of Warcraft, Diablo, and Overwatch) and Epic Games (creator of Fortnite) joined the company to be a part of its magic. And meanwhile, numerous celebrities, established brands, and product entrepreneurs Aped in, acquiring Bored Apes and featuring them in everything from music videos to streetwear—driving yet more attention to the brand as they did so.

NFTs made all of this possible. And perhaps ironically, they are able to create such massive and wide-ranging value because they do something simple extremely well: *defining digital ownership*. In this book, we're going to teach you what that is and why it's important. And then, we'll explain how NFTs are already changing the way we engage and do business. It's not just startups like Yuga Labs. Established brands like Starbucks and Adidas, sports leagues like the NBA and the NFL, and web platforms like Shopify and Ticketmaster are all leveraging NFTs to improve upon their existing business models.

Yuga Labs, just described, provides one case study, and through that and a series of others we discuss in further detail, we'll demonstrate the role—and inevitability—of NFT technology in our everyday lives. And we'll show you how to harness NFTs' power for your company.

BUT WAIT—AREN'T NFTS CONNECTED TO CRYPTOCURRENCY, AND ISN'T CRYPTO A SCAM?

We get this question a lot, honestly. Especially when popular cryptocurrency exchange FTX imploded in November 2022, many people we know were saying things to us like "Wow, too bad—I know you've been pretty into NFTs, but I guess that whole industry must've just collapsed, right?"

It's true that when we were writing this book, the world of crypto had something of an "immature market" feel to it. Some NFT projects and companies *were* outright scams; many more were just poorly thought-out, overhyped, or otherwise unsustainable as they spent money recklessly trying to deliver on unrealistic promises. And as you would expect, much of that quickly came crashing down.

But you know what? The early internet was like that, too, in a lot of ways. When we first got access to the web, we were cautioned not to put in any personal information—and certainly never to share financial information like credit card or bank account numbers. But as the technology matured, it became safer, more reliable, and easier to use. Nowadays, we punch our credit card number into online payment systems all the time, and many people do all of their banking online. Moreover, people buy everything from clothes to furniture on the internet sight unseen, get into cars as directed by apps, and use online marketplaces to stay in complete strangers' houses when traveling.

And you know what else? Even today, there are still scams on the internet—the ubiquitous kind with fakes, phishing, and the like. But while we're constantly working to improve online security and consumer protection, we certainly wouldn't want to stop using the internet—just like we wouldn't eliminate consumer banking even though there are sometimes bank runs. That's because the internet creates value in so many ways that it's become essential in people's daily lives.

It's early days yet, but NFTs—and crypto, more broadly—have that same potential.

NFTs make it possible to create an effectively infallible record of who owns what in digital space. We'll get into how that works soon (it uses those blockchains we've mentioned in passing a couple times*), but for now let's just think briefly about the possibilities.

Prior to NFTs, if a company wanted to create a digital good for its customers, doing so was expensive, time-intensive, and filled with complexities like developing and maintaining the digital platform where the product lived. As a result, in practice, being in the digital goods business really only made sense for digital-first platforms like gaming companies, streaming services, online education providers, or megacorporations like Apple and Amazon. And even then, the manner in which consumers could buy and interact with digital goods was highly constrained—they could typically only use their digital goods inside of the platform that created and sold them, in very specific ways.

Provable digital ownership through NFTs allows practically any company to unlock previously unattainable brand value. They can issue digital goods that provide real value to the customer, whether it's through access to special events, discounts on their products, or even just simple, shareable digital collectibles. Companies of any size, and even individual creators, can now make digital goods easily, without spending a tremendous amount of time and money in the process. Moreover, these goods don't have to be tethered to any individual platform, and that expands their value by giving consumers the opportunity to use them flexibly across the internet. NFTs have simultaneously

*And crucially, these systems remained robust even during the most chaotic moments of the 2022 crypto crash.

improved the value proposition of digital goods for both the creator making them and the consumer purchasing them.

This is an incredibly powerful general-purpose technology. And like all such technologies, early exploration and experimentation featured a lot of misuse, poor ideas, and even malbehavior. But while that makes the current iteration of NFT products somewhat unpredictable, it doesn't diminish the opportunity NFTs create.

Even as the early speculative bubble around NFTs was popping, major businesses and new entrepreneurs alike were waking up to the possibilities that NFTs present to enrich digital and real-world experiences, change the way we connect with friends and family, and transform the relationship between consumers and businesses. You might be surprised to learn that you've already interacted with NFTs, perhaps daily, if you use social media platforms like Twitter or Reddit.* Both organizations have quietly made use of the technology to let users showcase cross-platform digital avatars. Likewise, many people are now receiving NFTs as they drink coffee, attend events, or play online games. As we'll discuss in the chapters ahead, regular usage of NFT technology in the next few years is a near inevitability, as its applications grow by the day.

In the early days of the internet, few people had the foresight to realize we'd use it to stream shows, play games, connect socially, and pay most of our bills. In fact, there's an old *Late Night with David Letterman* clip where the comedian pokes fun at Bill Gates, asserting

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*Just as we were wrapping up this manuscript, Twitter was in the process of rebranding to "X." We've chosen to maintain the name "Twitter" here to ease the exposition.

that since devices like radios and tape recorders already exist, being able to watch sporting events on the internet was an unnecessary advancement. But nowadays, it's hard to imagine that anyone ever thought a Walkman cassette player could be a substitute for online streaming.

Similarly, digital goods have existed in some form for ages, but NFTs make them so much more powerful that they've become a completely new product category. As the technology surrounding NFTs evolves and matures, it has the potential to become part of almost everything we do online—and even much of our experience offline.

As we were writing this book, crypto adoption was growing, especially with younger demographics. The 2023 a16z crypto *State of Crypto* report showed millions of new active crypto user accounts and transactions since 2022, reflecting roughly a 50% increase in six months, as well as exponential growth in the number of new blockchain-based software applications (*smart contracts*, in the parlance of crypto), driven in large part by interest in NFTs. And even outside of crypto, digital assets were being bought, sold, and traded more than ever—even by children, who were regularly buying and trading items in games like Roblox and Fortnite.

NICE TO MEET YOU!

We're Steve and Scott, and we've spent much of the past few years embedded in NFT communities and helping launch NFT products. We're beta testers of sorts, of this brand-new technology—and we've seen its power firsthand. Steve even owns one of those expensive primate pictures.

But we haven't just been "going Ape." We've been writing, teaching, and advising companies about how and why NFTs work, and what they mean for the business world. We wrote the first *Harvard Business Review* article about NFTs in 2021, entitled "How NFTs Create Value." And since then, we've worked on so many parts of the NFT value chain that our learnings, well, fill a book.

Steve's a career marketer who's led multiple disciplines at Fortune 500 and multinational companies, and today he counsels startups, top brands, and the world's largest agencies on how to navigate the NFT world. Scott's a professor in the Entrepreneurial Management Unit at Harvard Business School and the Harvard Department of Economics. He studies the design of markets and marketplaces—and how new technologies can transform them. He's also on the research team at a16z crypto, a branch of the venture firm Andreessen Horowitz, where he advises a range of NFT creators, infrastructure developers, and marketplace builders.

And we're not just speaking to people who already know the landscape. We're helping legacy brands understand and make use of NFTs, and translating between cutting-edge crypto innovators and some of the biggest companies in the world. Steve works with Starbucks on its NFT-based rewards program, for example. Scott teaches MBAs and executives at leading tech and product firms how to build for this emerging internet era.

We wrote this book to explain how NFTs are transforming business and our day-to-day life. This is a brave new digital world—and whether you're an executive at a multinational company, a small business owner, or just a curious consumer, we hope you'll take away key lessons that will help you succeed.

So without further ado, let's peel that banana and formally introduce you to:

THE EVERYTHING TOKEN

Could digital "tokens" possibly be worth hundreds or thousands or even millions of dollars? The tokens themselves are just bits of computer data; shouldn't they be a dime a dozen (or perhaps even more appropriately, a penny a billion)?

The trick is precisely that these tokens *aren't* a dime a dozen—they're not random, arbitrary bits. Rather, each NFT is an individually distinct digital record, which can be linked to other assets or product features, and whose owner(s) can be consistently identified.

The term *non-fungible token* literally means what it says. Something is *fungible* when you can exchange one unit for another without a second thought. Dollar bills are fungible; so are grains of rice—for practical purposes, every one of them is just like any other. By contrast, each NFT is unique, just like in a litter of puppies. This makes them non-fungible—you generally wouldn't trade your puppy for another one! (The word *token* in context basically just means a digital object that a given user or account can have control over.)

Some NFTs come in editions with multiple copies of the same asset, like with trading cards: Two copies of a Charizard card in identical condition are equivalent from the perspective of most collectors. But for our purposes, a Charizard card is still non-fungible—especially relative to, say, a Pikachu card—because if you own one, you still own *your copy* of the card as a discrete asset, in a way we don't normally think of individual ownership of specific dollar bills, for example, even though each bill technically has a serial number.

Because each NFT (or copy thereof, in the case of editions) is individually distinct, the computer account that controls it can be consistently identified. This makes it possible to recognize an "owner" of an NFT in a way that was difficult or impossible in previous incarnations of digital goods: *The owner is whoever controls the token.* And NFTs can be linked to other assets or product features, extending the concept of digital ownership beyond just the token itself.

As we'll describe in more detail soon, the way NFTs work is similar to the way that the text on a deed to a house turns a dime-a-dozen sheet of paper into a record of ownership for a potentially quite valuable asset—which of course makes the deed itself valuable, too. You certainly wouldn't pay thousands of dollars for a random piece of paper, or likely even for a ticket to a local minor league baseball game (which is more or less a deed to a seat). But plenty of people would pay that much for the deed to a house.*

And just like with deeds, by making it possible to clearly establish and verify ownership—and potentially exchange it—NFTs enable

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*Technically, people are generally paying for the *title* to the house (i.e., the right of ownership over it); the *deed* is just the document granting that ownership/title. We'll often use the term "deed" slightly casually to cover both meanings in this text, because NFTs correspond more closely to deeds, but often meld both concepts.

markets to emerge. NFTs have enabled trade in digital images and media files (such as those Ape images we mentioned), as well as new business models around everything from rewards programs to online education.

But NFTs go even further: Because they're embedded in software, many NFTs can take on functions over and above simple ownership. Owning a house might also gain you access to the local Rotary Club and public schools. Imagine that but for brands: owning a Nike .SWOOSH NFT can get you access to special Nike releases. Bored Ape NFT holders get free entry to "ApeFest," the music festival we referenced earlier. Even the Vatican has issued NFTs that give holders exclusive access to historical artifacts and documents.*

And just as neighborhoods often form a sense of community and collaboration, NFTs are enabling participatory brand-building of a form and scale that has never existed before. You're not just along for the ride—you're part of the action. Imagine if you could have a true stake in Star Wars and own a character in that universe. Or play a role in designing the next-generation Patagonia jacket. Or—in a very different context—contribute to a global network around your favorite social cause.

Moreover, like with the Bored Ape brand, while NFTs started out in the digital realm, they have quickly carried over to the physical world as well. This isn't an accident: by design, NFTs share some value with their holders, and thus encourage them to invest in growing,

*And of course, these sorts of benefits are typically carried over with the NFT if/when it's transferred to a new holder.

sharing, and enhancing the brand everywhere, both online and IRL. While writing this book, we tried to think of a title that properly encompassed what an NFT actually can "do." We worked off the prompt, "What current products and services can NFTs augment or replace?" The simple answer was . . . pretty much *everything*. This technology has the power to revolutionize multibillion-dollar industries and small businesses alike, enhancing current revenue lines and creating entirely new ones. And we're already starting to see completely novel NFT-native product categories—not just digital brands like the Bored Ape Yacht Club, but also new forms of digital credentials, subscriptions, and ownership records.

As we'll unpack, NFTs start with the simplest of structures—just an ownership record in a digital database—but we can build functionality on top of them in a way that creates surprisingly flexible value. NFTs can turn images into event tickets, and event tickets into brand anchors. They will usher in the next generation of customer loyalty programs, creating structures that benefit both businesses and consumers in new ways. They'll change the way we manage our work histories and health data. And they can transform simply owning a product into a close-knit community experience.

NFTs are the everything token.