

# What to Make of the Great AI Hype

---

**AI may still be underestimated, but investors should remain cautious and highly selective.**

Brian Richards

President & COO, 1623 Capital

Jeff Fischer

Chief Investment Officer & Portfolio Manager, 1623 Capital



Q3 2023

[info@1623capital.com](mailto:info@1623capital.com) • 703-832-8232



*Our media continues its white-knuckled dedication to speaking about AI in only the most absurdly effusive terms, terms that threaten to exceed the power of language. Here's Ian Bremmer and Mustafa Suleyman in Foreign Policy: "Its arrival marks a Big Bang moment, the beginning of a world-changing technological revolution that will remake politics, economies, and societies."*

*They compared some interesting machine learning systems **to the Big Bang, the literal creation of the universe.** —Freddie DeBoer, "Does AI Just Suck?" [emphasis in original]*

What started with incredible fanfare this year has, perhaps unsurprisingly, been responded to by some with a great big heap of cynicism. (Though to be fair to cynics: Comparing AI to *the literal creation of the universe* is a bit much.) *MIT Sloan Management Review* published "Don't Get Distracted by the Hype Around Generative AI" in May. *The Boston Globe* published "The Hubris of AI Hype" in July. The blog post referenced in the above quotation, "Does AI Just Suck?" came out in August. Also in August was *The Washington Post's* "Every Start-Up Is an AI Company Now. Bubble Fears Are Growing." And so on.

Skeptics might say that the AI hype is hyperbole, and yet this backlash is predictable—Gartner calls this the "trough of disillusionment" phase of a hype cycle<sup>1</sup>.

AI follows on the heels of 3D printing, virtual reality, cryptocurrency, blockchain, SPACs, nonfungible tokens, and other investing excitements that have, so far, lifted far fewer companies in a lasting way than one might have expected. Although we expect AI to meet expectations better than any of these innovations, we believe it remains likely that only a minority of companies will benefit materially from AI when it comes to generating brand-new profits from it. Many companies might only benefit marginally, or increase efficiencies and margins, but many may actually lose ground to the competitive changes and added costs wrought by AI.

Nonetheless, at a high level, we believe the hype around AI as a technology will likely be justified or realized by many amazing outcomes in the years ahead, and ideally our lives and humankind will benefit in many meaningful ways—even if the investment implications are far from clear.

.....  
<sup>1</sup> See Appendix A for more on Gartner's hype cycle.

To understand why we've bought into the hype around the technology but are practicing caution when it comes to divining all the early winners and losers, let's look to recent history.

## The Internet Hype

One of my (Brian here) favorite investment books is *100 Best Internet Stocks to Own*, by Greg Kyle. It's not a particularly artful book—it's a few chapters of prefatory material on the promise of the Internet, followed by company profiles of the titular 100 stocks.

The book was published in May 2000. Following the long dot-com bull market, the Nasdaq peaked in March 2000, so one part of Greg Kyle's misfortune was that his book was released very close to the zenith of the "Internet bubble."

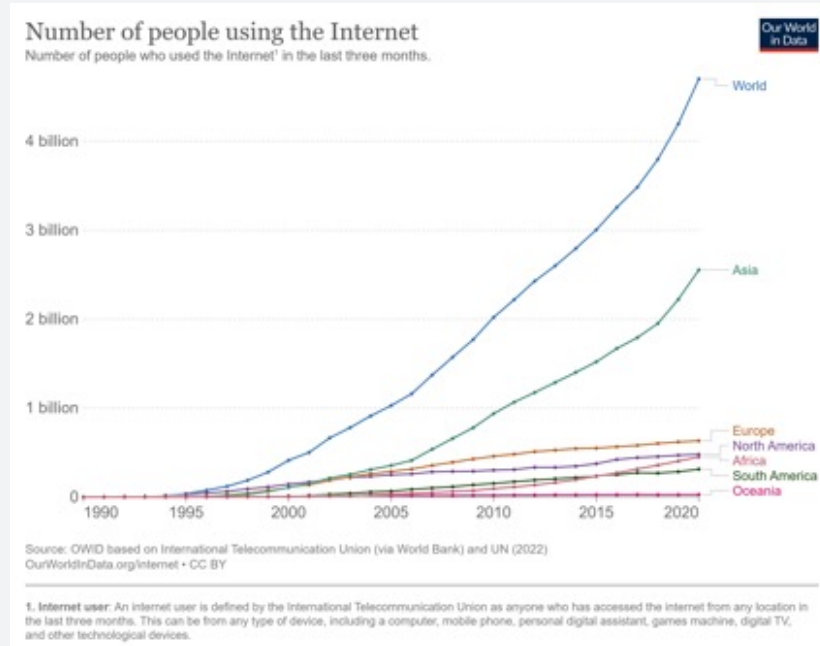
Kyle's opening lines get straight to it: "Nothing has created the opportunities nor the controversy that the Internet has. Often hailed as the Industrial Revolution in the Information Age, the Internet impacts every facet of our lives, empowering individuals and organizations on a scale—and a speed—that was not previously possible." (Doesn't that sound similar to how we hear AI discussed today?)

Kyle surveys the literature and provides a glimpse of what readers should expect from this new technology in the years ahead:

*"Internet access will no longer be tied to a computer but will be available anywhere, anytime, using cell phones, hand-held computers, and other Internet-capable devices. The Internet will become a central part of corporate strategy, allowing businesses to slash costs, improve cycle times and further strengthen customer relationships. And most important of all, we will still be discussing how connectivity is changing our lives."*

Credit to Kyle's prescience on this part.

The opening chapter also provides some stats that must have been jaw-dropping to a reader in early 2000. "Soon, more people will be surfing the Web than the entire population of North America," Kyle writes. His own research firm estimated 430 million worldwide Internet users by 2003. The actual figure turned out to be 82% higher, at 781 million.



OWID based on International Telecommunications Union (via World Bank) and UN (2022). [OurWorldinData.org/internet](https://ourworldindata.org/internet)

All these users, Kyle emphasized, weren't just chit-chatting or playing games—they were spending money. "Four years ago," Kyle writes, "the Web was being used as a brochureware for businesses. Today, these businesses are using the Web to generate an estimated \$82 billion in revenues either from consumers or other businesses. Within another four years, ecommerce will grow to more than \$1.2 trillion in revenues."

According to a United Nations report, B2C and B2B sales in the U.S. nearly hit that number—in 2001, two full years prior. (That year, ecommerce in the U.S. eclipsed \$1.03 trillion.)

We might find it incredible that Kyle, a noted booster of the space, somehow underestimated the industry's worldwide growth and adoption.

## It Didn't Much Matter for the Stocks

Obviously, Kyle's list of 100 had the misfortune of being published near the peak of the dot-com mania. But when I (Brian here) first investigated the returns of the 100 names back in 2007 with my friend and then-colleague Tim Hanson, we found a graveyard of dreams:

*Had you invested \$1,000 in each of Kyle's 100 Internet names back on April 20, 2000, and held them through September 2007, your \$100,000 investment would have turned into—drum roll, please—\$37,814. That's a total return of negative 62%, and again, that return is through the fall of '07—before the current bear market.*

*You were more likely to pick a company that would go bankrupt as you were to pick a company that simply increased in price!*

And as the years rolled on, evidence to the contrary didn't arise. The Phoenix didn't rise from the ashes. Many, if not most, early Internet names faded from importance, while only a handful collected much of the spoils. The industry continued to evolve, of course, and Web 2.0 brought a new wave of young entrants, as did the Cloud, and now AI. In each case, we can safely conclude from our observatory perch that an investor needed to choose their IPOs and young leaders very carefully, and even then there's no guarantee you'll make money. Witness an industry that has grown tremendously, but left investors wanting: 3D printing.

## The 3D Printing Hype<sup>2</sup>

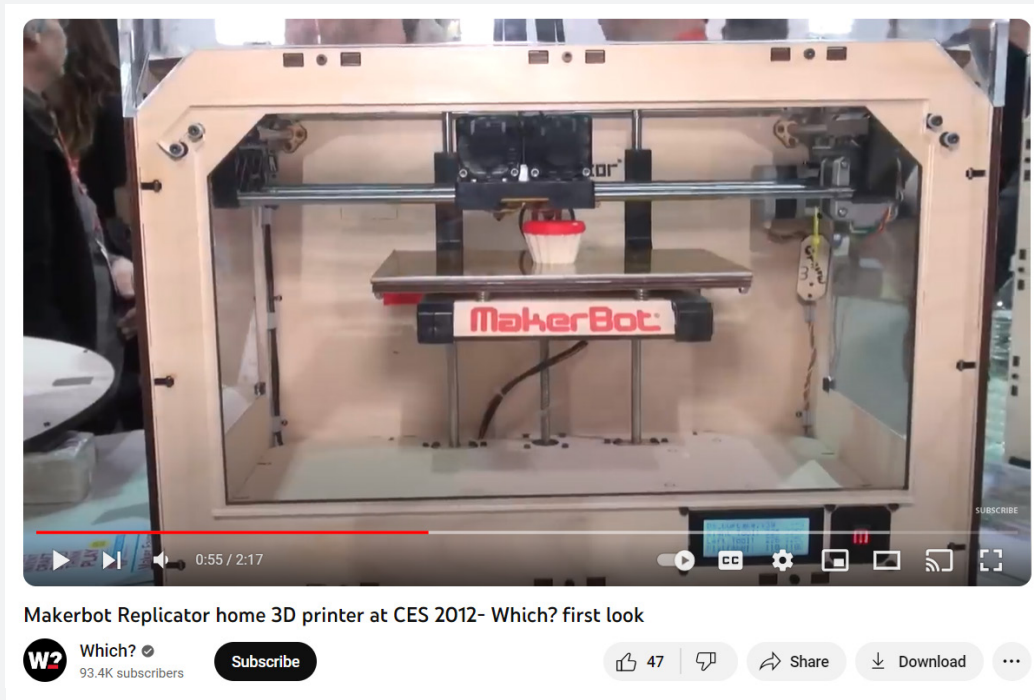
After a dip in attendance the prior few years, the Consumer Electronics Show (CES) in 2012 broke the event's all-time attendance record, with more than 153,000 attendees. Held annually in Las Vegas, the CES, which first launched back in 1967, now dubs itself as "the most powerful tech event in the world."

Companies show off their latest innovations in mobile phones, consumer electronics, Internet of Things, cooking gadgets, and whatever else you can imagine.

The 2012 show is important for one specific reason: the introduction of the MakerBot Replicator. As TechCrunch wrote, "At CES 2012, desktop 3D printing was the future, and MakerBot was front and center."

The MakerBot could 3D-print plastic items in two different colors and could print items as large as a loaf of bread.

.....  
<sup>2</sup> We're grateful to our colleague Paul Chi for the ideas and examples in this section.



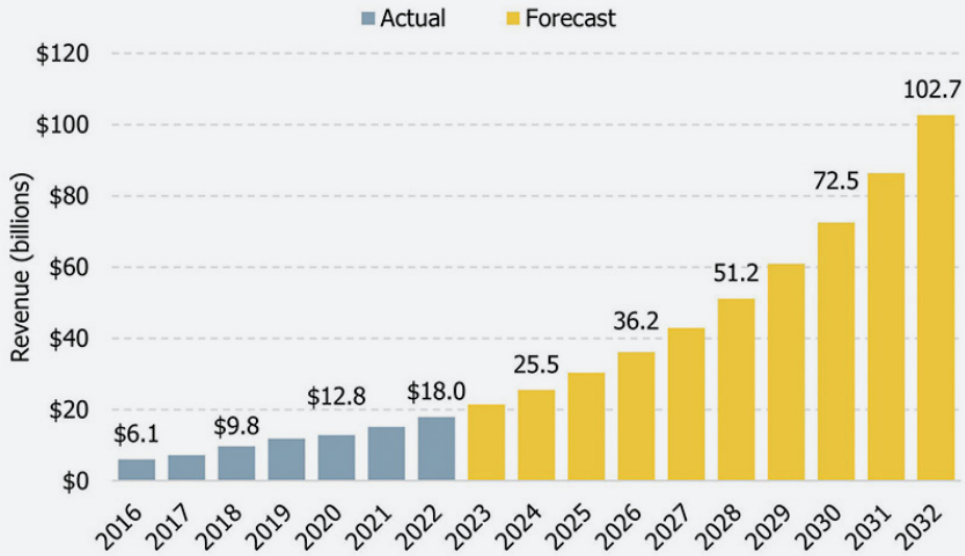
*The MakerBot Replicator at CES 2012, via YouTube.*

At CES, the MakerBot printed a plastic bottle opener “in the space of 20 minutes,” according to the BBC. That’s slow by today’s standards, but back then... it was amazing. Feed it a design and you could print it right away.

The first Replicator wasn’t super sophisticated—the items had slightly rough sides—but over time, the printer technology has become much more exact. The industry, writ large, took off.

The global market for 3D printing, or “additive manufacturing,” was \$1.7 billion in 2011, according to Wohlers Associates.

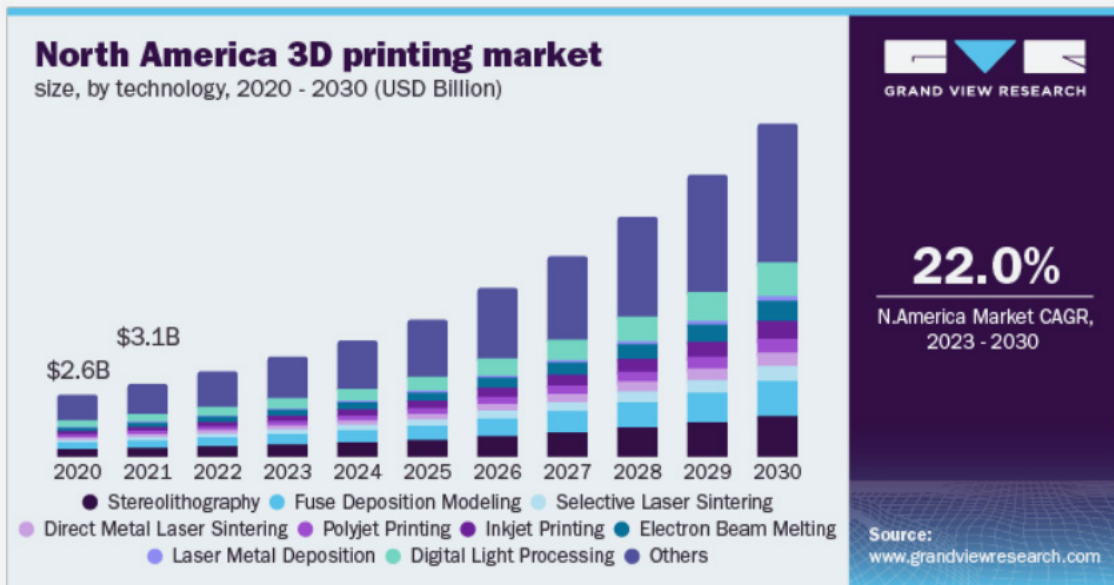
In 2022, that number rose to \$18.0 billion, and it’s projected by Wohlers to cross \$100 billion in 2032:



Wohlers Associates, [wohlersassociates.com](http://wohlersassociates.com).

From 2011 to 2022, global 3D printing revenues grew at an annualized rate of nearly 24%—more than 10x in 11 years.

It’s moved beyond one niche to serve many types of end customers, too:



Grand View Research, [grandviewresearch.com](http://grandviewresearch.com).

From clear plastic aligners, prosthetics, and artificial hearing aids, it's not a surprise that the health-care segment is large. But there are so many segments: Aerospace is a huge one because of the ability to print custom parts. Rapid prototyping can sometimes speed up the testing process, which may save time and money during the development of new aircraft.

## And Yet...

In an industry that's up 10x in 11 years, how did 3D printing stocks do?

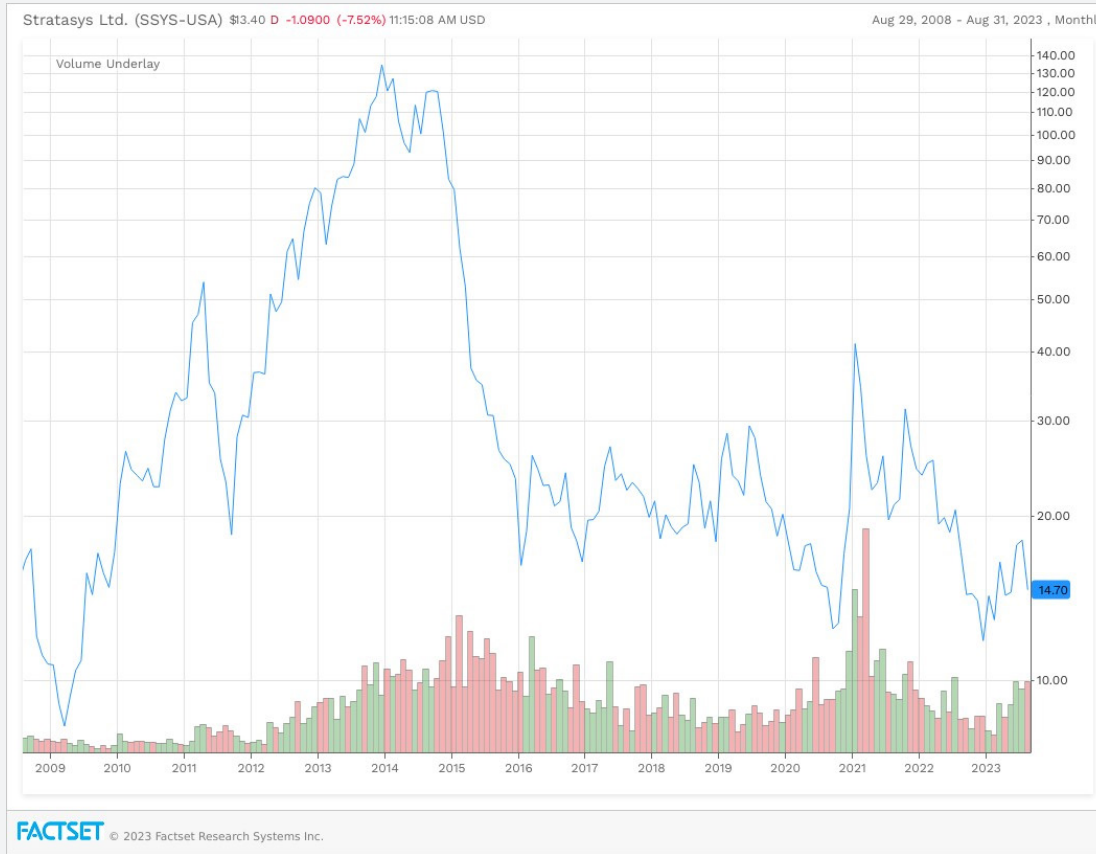
This is a chart of **3D Systems**, one of the most well-known companies in the space:



*3D Systems stock chart, August 2008-August 2023. Source: FactSet.*



While still up from its all-time lows in 2009, the stock was down more than 90% from its 2014 peak. (There was a bit of a second wind in the post-pandemic boom, but that's died down as well.) Here's the stock chart for **Stratasys**, another large, publicly traded 3D printing company:



*Stratasys stock chart, August 2008-August 2023. Source: FactSet.*

As you can see, it has nearly the same trajectory as 3D Systems, peaking around 2014 and down roughly 90% since.

Much like all things Internet after 2000, the 3D printing/additive manufacturing industry has done very well (10x growth in 11 years!). But the largest 3D printing stocks peaked around late 2013 or early 2014 and have been awful investments since (but even short sellers were largely too late unless they shorted near the peak!). What's more, the 3D printing industry is projected to continue rapid growth—Grand View Research is projecting a more than 20% annualized growth rate through 2030—but the stocks of the pure-play 3D printing stocks have still faltered.

# Thriving Industries, Struggling Stocks

We believe there are at least three explanations for the disconnect between industry success and stock performance.

The first is the market truism that in investing, *it's performance versus expectations that matters most.*

Put simply, in 2000 and 2014, investors had sky-high expectations for the future performance of Internet and 3D printing companies, respectively. But it turns out, in 2014, the leading independent 3D printing companies were already earning what would be *peak revenue* levels for going on nearly a decade now. For example, Stratasys' revenue in 2014 were \$750 million; in 2022, \$651 million. It's estimated that it may *finally* top 2014 revenue in 2025. It's a very similar story with 3D Systems. So, the early hype and surge in revenue (it had been surging the few years prior to 2014) can then take many years to lead to additional growth, partly because competitors can step in, leading to our next point.

The second reason is capitalism. The dot-com bubble may have shattered companies (and investors' portfolios), but it unleashed a flurry of new capital into the space, and created the modern Internet. For 3D printing, new entrants are entering the space every year and these machines are faster, can make bigger things, and can use new and different materials. The early leaders had to fight for new revenue as others entered the space. Innovation never sleeps.

The third point, which admittedly is related, is that investing in young, single-focused stocks is almost never simple. Why? Because pure-play companies need to possess an enormous first-mover advantage to have any sort of moat—because all that competition kicks up fast, threatening their one and only revenue source. Often, companies who aren't pure-plays can leverage new technologies in their own businesses to unlock solutions in ways not previously anticipated. When it comes to AI, already many large companies are employing their own solutions.

When Kyle published his book in 2000, he identified a total universe of 326 Internet stocks. Just a few years later, it would have been perhaps laughable to segment "Internet stocks" from "non-Internet stocks"—you used the technology, or you almost certainly fell behind.

Back in 1999, *Fortune* published a collection of Warren Buffett's talks on the stock market, including a famous speech given that year in Sun Valley, Idaho. Buffett talks

about the two great inventions of the early 20th century, autos and airplanes, and how surprisingly bad auto and airline stocks performed:

*“As of 1992, in fact—though the picture would have improved since then—the money that had been made since the dawn of aviation by all of this country’s airline companies was zero. Absolutely zero. Sizing all this up, I like to think that if I’d been at Kitty Hawk in 1903 when Orville Wright took off, I would have been farsighted enough, and public-spirited enough—I owed this to future capitalists—to shoot him down. I mean, Karl Marx couldn’t have done as much damage to capitalists as Orville did.”*

## Back to AI...

Which brings us back to the hype around AI.

We do believe that generative artificial intelligence will bring about massive change in the not-too-distant future. The predictions don’t seem far-fetched at all.

As for the effect on individual companies: Some companies will lead the way with AI products that customers pay to use, including the software and the picks and shovels needed to build and maintain the technology. We already see some large early leaders there. Other companies will simply employ AI better than competitors to generate new advantages in the marketplace. Many companies may improve efficiencies with AI, accelerating growth prospects and increasing profit margins. Overall, economists expect AI as a whole to drive *meaningful* accelerated GDP growth in the coming decade, perhaps with profound changes to the business world... and to life.

But sooner than we think, AI will likely be table stakes for most any industry and business—just as today nearly every company needs to use software to run efficiently and compete. That being the case, the number of companies that land a new and enormous financial windfall from AI may be relatively few. Existing AI can be used to create better AI, and AI could quickly proliferate itself to the point that it becomes commonplace. The few companies capable of using the technology best in each industry stand to benefit most over time, but only if they can keep competitors from doing the same. Finally, although some companies are benefitting in a big way already, like **NVIDIA**, any AI windfall for *most* companies will likely be years in the making, arriving gradually, and long after today’s market hype has diminished. So, if the related stocks are inflated well ahead of time, they may just use the coming years to grow into the new valuation, producing lackluster returns. Or could even decline. An investor should be patient, keep a critical eye, and inoculate oneself against the hype.

Once today's AI excitement solidifies into rote business assumptions (i.e., all companies need to use AI to compete), then everyone will get down to counting the dollars being made—or not made—from AI. And valuations on the related stocks will come under tighter scrutiny. For now, the excitement could endure, especially if the technology behind the excitement keeps making visible strides in advancement. Eventually, AI advancements will become more incremental, quieting down to a steady cycle of expected improvement. Then, much like today's omnipresent cloud software, everything will depend on the dollars being made. Stock valuations will matter much more again. Remember that today's share prices are a snapshot in time driven in part by a new excitement. Not all will persist.

## The Future: Much Like the Past

As we've seen, industries can thrive while companies struggle. There isn't a "rising tide" for all players who attach themselves to the hype. Or going back to Buffett's thoughts from that 1999 *Fortune* piece:

*"I won't dwell on other glamorous businesses that dramatically changed our lives but concurrently failed to deliver rewards to U.S. investors: the manufacture of radios and televisions, for example. But I will draw a lesson from these businesses: The key to investing is not assessing how much an industry is going to affect society, or how much it will grow, but rather determining the competitive advantage of any given company and, above all, the durability of that advantage. The products or services that have wide, sustainable moats around them are the ones that deliver rewards to investors."*

As you read more stories comparing AI to the creation of the universe, that's sage wisdom indeed.

# Appendix A: The Gartner Hype Cycle, Explained by ChatGPT

*The following is pulled straight from ChatGPT. We are presenting it lightly edited because... well, because it's quite good:*

The Hype Cycle is a graphical representation developed by the research and advisory firm Gartner that depicts the typical lifecycle of emerging technologies, products, or concepts. It illustrates the journey these innovations go through from their initial introduction to mainstream adoption and maturity. The cycle consists of five main phases:

- **Innovation Trigger:** This is the first phase, where a new technology or concept is introduced to the market. It often generates significant media and industry attention due to its potential and novelty. However, at this stage, there might be limited practical applications and a lack of clear understanding about the technology's capabilities.
- **Peak of Inflated Expectations:** As the technology gains more attention, expectations and excitement continue to rise, often reaching a point of excessive optimism. During this phase, people tend to overestimate the technology's potential benefits and may disregard its limitations and challenges.
- **Trough of Disillusionment:** As reality sets in and the initial hype subsides, many technologies face setbacks, challenges, and failures that were previously overlooked or underestimated. This leads to a period of disappointment and skepticism. Some technologies might even fail to live up to the initial expectations, causing a decline in interest and investment.
- **Slope of Enlightenment:** After the initial disappointment, a more balanced and realistic understanding of the technology's potential starts to emerge. During this phase, organizations and individuals learn from their mistakes and begin to identify practical and valuable use cases for the technology. Progress is made in addressing challenges, and successful implementations become more common.
- **Plateau of Productivity:** In this final phase, the technology reaches a point where it is widely understood, adopted, and integrated into various industries and applications. The benefits are now well-established, and the technology becomes a standard tool or solution. The focus shifts from hype to delivering tangible results and optimizing the technology's capabilities.

Remember that the Hype Cycle is a general framework and not all technologies follow the exact same trajectory. Different technologies can progress through these phases at varying speeds and with differing outcomes.

---

## Disclosures

*Certain funds and investment products/services managed by 1623 Capital LLC ("1623") or any of its affiliates may hold shares of Stratsys, 3D Systems, or NVIDIA. The mention of specific securities does not constitute any intent to buy or sell such company nor any inference of a recommendation thereto. Rather, the discussion of these companies is solely intended to illustrate the trailing performance of various stocks, sectors, and indexes, and/or highlight current news with regards to these companies.*

This discussion is intended for informational purposes only, and should not be deemed as investment advice or a recommendation to purchase or sell any specific security. This information reflects the opinions, estimates and projections of 1623 as of the date of publication, which are subject to change without notice. We do not represent that any opinion, estimate or projection will be realized. While we believe this information to be reliable, no representation or warranty is made concerning its accuracy. Should you need personal financial advice, we encourage you to speak with a qualified professional regarding all personal finance issues.

Note that past performance and trends do not guarantee future results. Additionally, forward-looking statements—statements that speculate future outcomes based on current and/or past data—involve risks and uncertainties and do not guarantee any particular results. Actual results may materially differ from any expectations, projections, market outlooks, estimates, or predictions ("Predictions") made or implicated in such forward-looking statements. Predictions are not, nor should they be construed as, indicative of the actual results that will occur.

THIS WHITE PAPER DOES NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY ANY INTERESTS IN ANY FUNDS MANAGED BY 1623. All references to the funds we manage are subject to and qualified in their entirety by reference to information appearing in their respective Offering Memoranda, and offers are made exclusively on the terms contained in the Offering Memoranda. All securities are offered by TMF Investments LLC ("TMFI"), a registered broker-dealer, member FINRA and SIPC, located at 2000 Duke Street, Alexandria, Virginia 22314. TMFI is an affiliate of 1623 Capital.

IMPORTANT RISK INFORMATION. All investments involve risk, including loss of initial investment. The investments and strategies offered by 1623 may not be suitable for all investors. Our funds are speculative and may use leverage and as a result their returns may be volatile. The investment strategies may involve short selling, which may result in substantial loss if securities that are sold short appreciate in value. There is no assurance that the funds' objectives will be achieved or that any investment in our funds will be successful. 1623 Pro Fund II operates as a "parallel" fund, meaning it will invest alongside other

funds managed by 1623 that follow the same strategy. Conflicts of interest may arise in connection with decisions made by 1623, including with respect to the nature, structuring and/or timing of portfolio investments, that may be more beneficial to the other funds. 1623's allocation of portfolio investments among the parallel fund and other funds may not, and often will not, result in proportional allocations among the Fund and other funds, and such allocations will necessarily be more or less advantageous to the Fund relative to the other funds. There can be no assurance that the parallel fund and other funds will make or dispose of portfolio investments at the exact same time or on exactly the same terms. The specific risks and conflicts of interest are explained in each fund's Offering Memoranda, which you should carefully read. The deduction of a management and performance fees and expenses reduce an investor's return. Past performance does not guarantee future results.

1623, an affiliate of The Motley Fool ("TMF"), is an investment adviser registered with the U.S. Securities and Exchange Commission. 1623 is a separate entity, and all investment advisory services are provided independently by the asset managers at 1623. No TMF analysts are involved in the investment decision-making or daily operations of 1623.