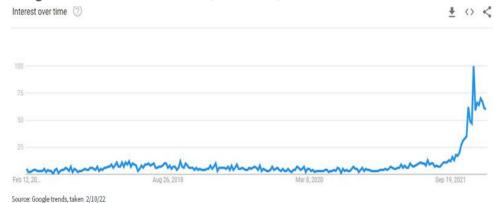
WILL THE FUTURE BE WEB3, METAVERSE OR OPEN SOURCE?

Benjamin Dean — Director of Digital Assets at WisdomTree in Europe 02/11/2022

"Web3" has emerged as a buzzword over the last few months. An underlying assumption in this term is that there was a preceding web1, there was a web2 and there will soon be a new phase in this process of technological change. There is a fight over what this future might look like—the opposing camps can be loosely framed as those who see it as web3, those who see it as Metaverse(s) and those who would like it to be open source—and there is overlap between the camps. Those who understand what these terms mean, how digital assets are involved and why the terms are garnering so much attention (and controversy) may be better positioned to spot new opportunities in the future.

Web3 was introduced by Gavin Wood in 2014¹, but it has since been popularized by Chris Dixon and his team at venture capital firm Andreessen Horowitz² (a16z). Summed up as "read, write, own," the term implies that online life has gone through three successive phases where users have gradually been able to extend what they can do online.

Google Trends, Interest over Time (2017–2022) in Term "Web3"



First, there was web1. Born out of the mid-1990s, a community of free and open-source software (FOSS) developers tried to build a digital ecosystem where users would be able to run their own servers, control/own their data and lead relatively autonomous lives online. Tim Berners-Lee's World Wide Web (www) is emblematic of this open-standard vision⁴. This vision spawned companies like GeoCities—customized home pages written in html with the liberal use of qifs⁵—and Napster and BitTorrent—which allowed peer-to-peer file transfer⁶.

This vision did not entirely work out.

According to this narrative, web2 came next and involved a shift to more interactions occurring on platforms owned by companies like Google, Facebook and Twitter. In exchange for "free" hosting and sleek user interfaces, people interacted on closed-source platforms where user data that was collected (including a lot of valuable personal information) was licensed in perpetuity to the platform owners. This valuable intangible property allowed these companies to eventually grow and dominate the market.

Andreessen Horowitz sensed a shift occurring in the digital space and adopted the "web3" term to capture their vision for the future. Others have also sensed this shift occurring and have termed it "Metaverse." The old guard of FOSS think there might be an opportunity to reincarnate their original vision of open-source online life. Digital assets have a role in each of the three visions.

In the web3 vision, there are open-source protocols on which new decentralized applications are built. Boosters point to



the use of public-key cryptography and distributed databases ("blockchains") to give people control when and where those assets are transferred. This is the "own" part of a16z's "read, write, own" mantra. In practice, this confers some concept of "ownership," though not in a legal sense. Detractors will point out that many interactions on these platforms currently require users to entrust their private keys to the platforms. The ecosystem is not entirely distributed either. Moreover, venture capitalists hold varying proportions of the coins and tokens when the distributed networks are created⁸, such as Solana (SOL) or Avalanche (AVAX), meaning they are likely to capture a large portion of the value created.



Crypto & Blockchain Sub Verticals (Includes some Data Management/SaaS/Business Intelligence Platforms)

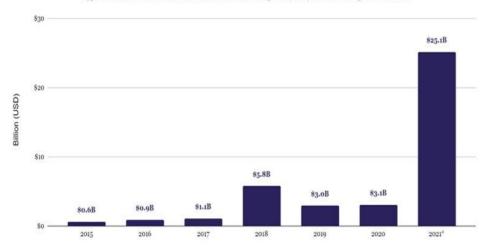


Figure 27: Yearly Venture & private investment 2015-2021

Source: Crunchbase, Dove Metrics, Pitchbook, The Block Research

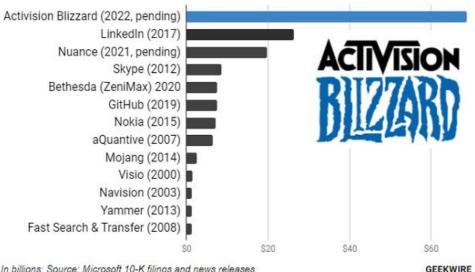
Source: The Block Research Digital Asset Outlook 2022

The open-source model takes the web3 vision a step further. The idea is that decentralized applications are developed using open-source software and protocols. Distributed databases and public-key cryptography—where users self-custody their private keys—confer control, ownership and, ultimately, responsibility over one's digital assets. At the expense of security and the need for deeper technical knowledge compared to the web3 model, this vision might allow people to recoup and benefit from the value of the intellectual property and retained value that they create when interacting online. This is a vision that has captivated the CEO of Block, Jack Dorsey, who sees <u>Bitcoin</u> as one of the key open-source protocols.

In the Metaverse model, people primarily interact via closed-source and integrated online platforms. This represents an incremental evolution of the successful models of the past decade, such as those developed by Microsoft, Google, Facebook and others. Many people are quite comfortable using these platforms—even if security and privacy have been historically problematic. Integrating people's professional, social, recreational, financial and other facets into one platform might deliver convenience, cost and speed benefits that outweigh the downsides. This is part of the logic that underpins Microsoft's most recent—and largest-ever—acquisition of video game maker Activision Blizzard.⁹



Microsoft's Largest Acquisitions of All Time



In billions; Source: Microsoft 10-K filings and news releases

The battle lines are becoming clearer but constantly shifting in the contest for digital property rights over the coming decade. While these three broad visions are not mutually exclusive, the risk/reward ratio varies substantially across the different contenders in this space. Suffice to say, the stakes are high. Those who successfully navigate the space stand to gain a cut of the next phase of digital asset value creation—and this time, it might be more than just insiders who do so.

For standardized performance and the most recent month-end performance click here NOTE, this material is intended for electronic use only. Individuals who intend to print and physically deliver to an investor must print the monthly performance report to accompany this blog.

Related Blogs

- + Introduction to Ethereum's dApps—Deep Dive into OpenSea
- + Introduction to Ethereum's dApps—Deep Dive into Aave

View the online version of this article here.



¹ https://www.wired.com/story/web3-gavin-wood-interview/

² https://future.a16z.com/why-web3-matters/

³ https://twitter.com/cdixon/status/1459036992050716697?lang=en-GB

⁴ https://home.cern/science/computing/birth-web/short-history-web

⁵ https://www.wired.com/2009/11/geocities/

⁶ https://www.wired.com/2013/04/napster/

⁷ https://moxie.org/2022/01/07/web3-first-impressions.html

⁸ https://preview.redd.it/2f6fm0t9nvn71.png?width=979&format=png&auto=webp&s=08a2695df35b796fbe3dbafdc27fe

https://news.microsoft.com/features/microsoft-to-acquire-activision-blizzard-to-bring-the-joy-and-community-of-gamin <u>q-to-everyone-across-every-device/</u>

IMPORTANT INFORMATION

U.S. investors only: Click <u>here</u> to obtain a WisdomTree ETF prospectus which contains investment objectives, risks, charges, expenses, and other information; read and consider carefully before investing.

There are risks involved with investing, including possible loss of principal. Foreign investing involves currency, political and economic risk. Funds focusing on a single country, sector and/or funds that emphasize investments in smaller companies may experience greater price volatility. Investments in emerging markets, currency, fixed income and alternative investments include additional risks. Please see prospectus for discussion of risks.

Past performance is not indicative of future results. This material contains the opinions of the author, which are subject to change, and should not to be considered or interpreted as a recommendation to participate in any particular trading strategy, or deemed to be an offer or sale of any investment product and it should not be relied on as such. There is no guarantee that any strategies discussed will work under all market conditions. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This material should not be relied upon as research or investment advice regarding any security in particular. The user of this information assumes the entire risk of any use made of the information provided herein. Neither WisdomTree nor its affiliates, nor Foreside Fund Services, LLC, or its affiliates provide tax or legal advice. Investors seeking tax or legal advice should consult their tax or legal advisor. Unless expressly stated otherwise the opinions, interpretations or findings expressed herein do not necessarily represent the views of WisdomTree or any of its affiliates.

The MSCI information may only be used for your internal use, may not be reproduced or re-disseminated in any form and may not be used as a basis for or component of any financial instruments or products or indexes. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each entity involved in compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties. With respect to this information, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including loss profits) or any other damages (www.msci.com)

Jonathan Steinberg, Jeremy Schwartz, Rick Harper, Christopher Gannatti, Bradley Krom, Tripp Zimmerman, Michael Barrer, Anita Rausch, Kevin Flanagan, Brendan Loftus, Joseph Tenaglia, Jeff Weniger, Matt Wagner, Alejandro Saltiel, Ryan Krystopowicz, Jianing Wu, and Brian Manby are registered representatives of Foreside Fund Services, LLC.

WisdomTree Funds are distributed by Foreside Fund Services, LLC, in the U.S. only.

You cannot invest directly in an index.



DEFINITIONS

Metaverse: The metaverse is a digital reality that combines aspects of social media, online gaming, augmented reality (AR), virtual reality (VR), and cryptocurrencies to allow users to interact virtually.

Open Source: Open source refers to a software program or platform with source code that is readily accessible and which can be modified or enhanced by anyone. Open source access grants users of an application permission to fix broken links, enhance the design, or improve the original code.

Bitcoin (the currency): A digital currency (also called a cryptocurrency) created in 2009, which is operated by a decentralized authority as opposed to a traditional central bank or monetary authority.

