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## **Facebook, the Metaverse, and the Cyberspatial Fix**

“In Marx’s time the machine tool industries anchored and drove many technological changes (e.g. the proliferation of steam engine technologies) while in our own time venture capitalists go out of their way to define new technological and organizational strategies for production as well as opening up new markets for the organization of information and consumption.”

– David Harvey, *The ABC of Capital*, Chapter 3, 2022

“And this is something that I hope eventually millions of people will be working in and creating content for — whether it’s experiences, or spaces, or virtual goods, or virtual clothing, or doing work helping to curate and introduce people to spaces and keep it safe. I just think this is going to be a huge economy and frankly, I think that that needs to exist.”

– Mark Zuckerberg, 2021<sup>1</sup>

### **Introduction**

In October 2021, Facebook founder and CEO Mark Zuckerberg announced his company would be rebranding itself as Meta Platforms, Inc., a move meant to reflect a committed push into the “metaverse”: a hypothetical, internet-enabled, virtual space. Between 2019 and 2022, the company has spent a staggering \$36 billion on this endeavor. And Meta’s contribution is only part of a larger industry trend towards the establishment of what has been marketed as “Web3,” a “new” version of the internet that will combine elements of virtual reality, augmented reality, and blockchain technologies to extend private property rights over digital assets and establish new exchange markets and, crucially, new sites for extraction of both data and rents.

In this paper, I work through “capital’s basic laws of motion”(Harvey, 2022) as they apply to Facebook/Meta to illuminate the factors that led to this investment, what speculators hope to achieve through this investment, and what contradictions may lay within this investment. First I draw from Facebook/Meta’s own marketing materials, and both internal and external financial reporting on the firm and the industry at large, to plot Facebook’s financial history and speculative future. I then draw from the work of contemporary Marxian scholars David Harvey, Daniel Greene, Daniel Joseph, Jathan Sadowski, and Nick Srnicek, to parse how exactly Facebook/Meta captures value. Lasty I apply Harvey’s metaphor of the spatial fix to this moment, and extend that metaphor to argue Facebook/Meta’s investment in the metaverse is an attempt at a “cyberspatial fix” for Facebook’s overaccumulation of capital and declining rate of profit.

Although Harvey and others have demonstrated that capital has largely succeeded in establishing a global market—and with it an all encompassing capitalist totality that affects

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<sup>1</sup> From: Newton (2021)

social formation on a planetary scale—I focus here on a single (albeit massive) firm. I too acknowledge the totality of capital in the year 2022. My intention is to use the specific example of Facebook to illustrate and articulate larger trends regarding the role of private capital wielded at a massive scale, the creation of digital space, and, in the absence of fundamental changes to the social relation between labor and capital, how the logic of capitalism is recreated and reinforced with every new technological development. If “the creation of the world market is foundational within the capitalist imperative”(Harvey 2022, Ch.1) is it possible that as accumulation within an established world market reaches a saturation point, the creation of a digital market is eventually required? Could the metaverse act as a release valve for capital and encourage its further circulation, or will it be a boondoggle akin to previous investments in virtual reality? Only time will tell. But by closely examining the specific case of Facebook through its current operations and financial history, we may gain some insight into the obstacles, contradictions, and potential outcomes worthy of consideration in capital’s ongoing process of becoming.

### **Facebook by the Numbers**

The Facebook was officially launched in 2004 at a small number of universities, rebranded as Facebook in 2005 as it rolled out from universities to high schools, and was opened to the general public in 2006 (Phillips 2007). It received its first major investment, \$500,000 from PayPal cofounder and venture capitalist Peter Thiel, in 2004 (Hodgkinson 2008). It rapidly grew to a user base of a reported 845 million monthly active users (MAUs) before its initial public offering in 2012 when it was valued at approximately \$104 billion, a record high for an IPO at the time. It reached its peak value in 2021 at over \$1 trillion with a reported 2.9 billion MAUs on its core Facebook product (Walton 2022). Over the years it has acquired a number of other firms including Instagram in 2012, WhatsApp messenger in 2012, and “virtual reality” headset maker Oculus VR in 2014 (Sraders 2020). The primary product, Facebook, continues to grow in usership although it was revealed in leaked internal documents that it doesn’t actually have accurate user numbers (Shechner & Horwitz 2021).<sup>2</sup> In 2021, the company officially rebranded as Meta Platforms, Inc. However 2022 saw a significant decline in Facebook/Meta’s valuation, with its stock price dropping roughly 70% over the course of the year resulting in a valuation of \$316 billion as of writing. In November 2022, the company announced its first major layoffs since its founding (Frenkel, Satariano, & Mac 2022).

Facebook allows users to sign up to its service for free, and then sells “targeted ads”: advertisements and promotions served through its interface to users based on demographic, location, behavioral, and other data collected and modeled by the firm.<sup>3</sup> Almost all of the company’s income comes from selling advertising. Based on internal accounting, in 2020 97.9% of Facebook’s revenue came from advertising sales. This actually marked increased reliance on advertising since 2015, when it accounted for just 95.2% of its revenue. Closely examining

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<sup>2</sup> This complicates theories on how to calculate Facebook’s value addressed later.

<sup>3</sup> From: Meta: Ad Targeting. <https://www.facebook.com/business/ads/ad-targeting>

Facebook/Meta's finances over time is quite revealing. From 2015 through 2020, Facebook increased its revenue, its MAUs, its net income, and its cash on hand. However, the rate of growth was largely on the decline prior to a slight recovery in 2020 (attributed by Facebook to COVID-19 lockdowns). The rate of revenue increase dropped steadily by about 10% yearly between 2016 and 2019 from 54% to 27% growth. And the rate of MAU growth decreased from 14% in 2017 to 8% in 2019. Meanwhile, cash on hand increased over this period from \$41.7b in 2017 to \$61.95b in 2020.<sup>4</sup>

There are multiple factors that may have led to this rising mass and declining rate of profit for the firm. Facebook calculates average revenue per user (ARUP), and then breaks that down geographically. While Facebook continues to add users, most of those users are coming from regions outside of the higher ARUP regions of the U.S., U.K., and Europe. Because of Facebook's reliance on advertising revenue, users in areas of higher consumption capacity are more valuable, but it is precisely in these areas where Facebook seems to have hit a saturation point (Trend 2021). Facebook is also increasingly facing competition, especially for younger users. In 2021 it was reported that Facebook had seen a decrease in teenage users of 13% since 2019. Additionally, of the younger (more lucrative) demographic that does remain, their usage is down. Internal researchers called this the "most concerning trend" claiming Facebook is "losing our total share of time" (Heath 2021).

### **Pivot to the Metaverse**

In the midst of this downward trend in growth and increasing stores of cash, Facebook announced it was officially rebranding as Meta in October 2021, with Zuckerberg stating "all of our products, including our apps, now share a new vision: to help bring the metaverse to life" (2021). They have invested \$36B in Reality Labs, their metaverse subdivision, since 2019, at an operating loss of \$30.7B (Dean 2022), and despite these losses, Reality Labs engineers were largely spared in the 2022 layoffs that reduced Meta/Facebook's employee count by roughly 13% (Frenkel, Satariano, & Mac 2022).

But what is the metaverse?<sup>5</sup> Tech critic Evgeny Morozov describes the results of the VC tech boosters investing in and promoting the concept of Web3 (of which the metaverse is considered a part) so far as largely rhetorical, a "territory-free map" waiting to be realized (Morozov 2022). That is to say, there are a lot of big ideas about what the metaverse or Web3 *will be*, and a lot of money being invested, but little to point to so far in terms of material realization of either the technology or the political economy of such a system. However, we can parse the rhetoric and trace where investment into the metaverse has begun to flow to get an idea of what is being proposed.

In January of 2020, expanding on an earlier piece from 2018, venture capitalist Matthew Ball published an influential essay describing what the next version of the internet would look like: a "Metaverse," with key features including a live, persistent, synchronous environment with

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<sup>4</sup> All calculations drawn from Facebook 10-K financial statements released 2016–2021.

<sup>5</sup> The term "metaverse" originally comes from Neal Stephenson's dystopian 1992 sci-fi novel *Snow Crash*.

its own digital economy, transferability of assets via interoperability (specifically challenging and intermingling brand IP), and mixed media components that will include augmented reality, virtual reality, and existing forms of digital communication (Ball 2020). What is described is not a closed world belonging to any one brand or entity, but rather a new form of networked digital relations with a similar stack of software, protocols, hardware, governance, and large and small concerns, users and platforms and content providers, as the existing complex referred to as “the internet.”

So what role will Facebook/Meta play in this new system? When Facebook acquired headset maker Oculus VR in 2014, Mark Zuckerberg was already talking about the “platforms of tomorrow”(2014). Zuckerberg has claimed the creation and adoption of the metaverse will be similar to the transition from personal computers to mobile computing, a transition that Facebook was successful at navigating, and which didn’t change its core business model of selling targeted advertisements. If anything, the switch to mobile allowed Facebook access to more time from users, and new types of user data (e.g. location data). It would seem that Facebook/Meta’s investment in the metaverse will be an attempt to once again recreate their current business model within the new forms of circulation promised. As Ball writes, “The Metaverse will be a place in which proper empires are invested in and built, and where these richly capitalized businesses can fully own a customer, control APIs/data, unit economics, etc. In addition, it’s likely that, as with the web, a dozen or so platforms hold significant shares of user time experiences, content, etc.” Early signs point to Facebook/Meta’s ambition to keep their seat at this table.

According to early reporting, Facebook/Meta is patenting new forms of biometric monitoring, via their wearable hardware, that will allow for advanced targeted ads. In addition to building hardware, Facebook/Meta has discussed hosting a digital store where they will allow third-party vendors to sell digital assets alongside their own digital commodities, and will create “spaces” and software for both work and recreation (Murphy & Mance 2022). Zuckerberg has also noted Facebook/Meta is part of an industry-lead consortium—alongside Microsoft, Google, HTC, and Sony—working to develop interoperability protocols and promote the technologies that would underpin anything resembling a metaverse (Newton 2021). Facebook/Meta also attempted to back a proprietary cryptocurrency Diem (né Libra), but its involvement with that project seems to have finally ended as of early 2022 in response to regulatory scrutiny (Heath 2022).

### **How Facebook Captures Value**

If Facebook/Meta plans on recreating their business model within the “metaverse,” it is worth examining what social relationships underpin that model, and how they might be recreated and reinforced in a hypothetical “new” internet. When examining Facebook’s financial history, it is clear that they pursued a growth strategy that relied on rapid accumulation of users and data, spurred by investment capital. This rapid growth generated a mass that has allowed them to further concentrate and increase their mass through acquisitions (incorporating competitors along

with their own stores of users and data), and to generate substantial (if declining) profits via advertising revenue. But a fundamental question remains: how in this process is Facebook capturing value? If value is determined by the relationship between labor and capital, then we need to understand the role Facebook plays in mediating this relationship.

In current Marxian scholarship there are essentially two competing schools of thought regarding the value (if any) of data, and how that value is captured by firms. Looking at the specific case of Facebook/Meta—in particular their core social network product, Facebook—will help illustrate the agreements and distinctions between these two theories. Both offer unique and compelling insights into the internal laws of capital guiding Facebook/Meta’s current predicament and possible next steps. The first argument posits that Facebook is creating value directly, through the production of an “audience commodity,” derived via the unwaged labor of users, which it then sells to advertisers (Greene & Joseph 2015). The second argument instead frames Facebook/Meta as a rentier, exacting monopoly rents from productive sectors of the economy reliant on Facebook to reach consumers and ultimately realize the value of their commodities (Sadowski 2020; Srnicek 2021).

In attempting to apply the labor theory of value to “digital spaces,” scholars Daniel Greene and Daniel Joseph build on Dallas Smythe’s analysis of advertising-driven media. Greene and Joseph take up Smythe’s formulation of the “audience commodity”—wherein content is provided as a way to lure in and *produce* an audience that is then sold to advertisers—and apply it to various free-to-use digital services. Facebook is well suited for understanding this model as, unlike other more complex digital spaces with mixed revenue streams, advertising revenue accounts for anywhere from 95–97% of its income. In this formulation, the audience is the commodity and the commodity is produced through unwaged labor: the labor time spent interacting with digital spaces—both generating data and then watching ads. Greene and Joseph argue that this time, coerced away from social reproduction or stolen in small slivers while the user is shirking waged work elsewhere, contains value that is then realized when Facebook sells advertisements on its platform. Facebook’s great innovation then has been using digital space to capture and capitalize on previously latent labor time, untethered to any fixed geographic space other than where a user has access to their device. If we accept this formulation then I would add to this user labor the marginal (in terms of mass) but significant variable labor of engineers, designers, content moderators, and other Facebook employees required to capture, clean, and produce these audiences. When attempting to calculate the surplus value being produced, we would also need to account for constant capital deductions in the form of servers, office space, software, and the like.

The competing view rejects the formulation above, explicitly framing “digital platforms” as non-productive rentiers who must siphon value produced by other firms and sectors elsewhere in the commodity stream. Jathan Sadowski uses contemporary rent theory to describe digital platforms as extracting “[differential rent type 2] with the aim of extracting absolute rent” (2020, p.568). In other words, he sees the platforms as investing in the creation of a “space” under their control where other commercial activity can occur, and the platforms can then extract fees on

whatever production or circulation of value occurs within that space. Building on this formula, Nick Srnicek describes “three prominent mechanisms of rent in the contemporary digital economy: intellectual property rents, advertising rents, and infrastructure rents.” (2021, p.35) Facebook/Meta in some portion collects all three, but again, to understand Facebook/Meta we must focus on its overwhelming reliance on ad revenue to capture value. In sketching out “advertising rents” Srnicek acknowledges the role of aggregated user data and targeted online ads in this process, but makes explicit they are not being used to *create* value through production, only to capture it:

“Here personal data are used to reduce costs (of finding out information about individuals) and to create targeting systems that ostensibly offer prime real estate for those who want to market their products... The production of ad platforms can, itself, be surplus-value generating as a firm employs constant and variable capital in order to produce market research commodities, technological platforms, and other outputs. But in general advertising’s role is heavily circumscribed and almost entirely related to the distribution of value rather than the production of value.” (2021, p.35)

In this reading, some of the capital that goes into making the platform can be seen as productive, but the surplus labor value is mostly coming into the equation much further down the line, in the creation of the commodities, which the producers are then setting aside a part of, to pay for advertising, to stimulate consumption. If this is the case, then on the level of the individual firm, Facebook likely isn’t too concerned about the efficacy of the ads it hosts, or the final ultimate realization of value through consumption, as long as they are able to maintain their monopoly through their mass and charge their rents earlier in the circulation process. However, if consumptive capacity doesn’t rise in the larger system from which Facebook is siphoning—or, say, decreases in the case of rising inflation or a recession—they may face a reckoning for which they are unprepared.

Both diverging accounts can be used to illustrate Facebook’s reliance on mass, and point to a compulsion to increase that mass, specifically to continuously accumulate users and their data, which can be converted into money capital through ad sales. The first formulation is attractive in that it sketches a much clearer social process embodied in the value of *data*. And in particular highlights the technological innovation of aggregating tiny pieces of labor time via digital reach, an innovation which helps account for Facebook’s rapid explosion in mass. But it does leave some questions as to how the labor that goes into generating that data is actively coerced and how unwaged labor translates to socially necessary labor time. The second argument locates labor value almost entirely outside of Facebook which seems in line with an overall global system that has seen major growth in accumulation that seems to be almost entirely unproductive (Harvey 2022, Ch.14). However the function, value, and production of data (is it a raw material, is it capital itself? (Srnicek 2021; Sadowski 2019)) is a bit undertheorized and unsatisfactory.

I would briefly argue that in Marxian terms, data should potentially be considered a productive technology. Clearly data must be produced, and as we can see from the

examples above, this goes beyond mere extraction. It must be refined, cleaned, and packaged, after which it can be deployed in various capacities to provide different functions to aid in the circulation of value (Sadowski 2019). In this way, firms producing data could be seen to be producing new means of production. Like an industrial machine, or any hardware or software, data must also constantly be maintained—refreshed and renewed over time—to remain effective. A firm-by-firm analysis would still be required to locate a) the balance of variable (including, but not limited to, unwaged user labor) and fixed capital required to produce value at the source, and b) to determine where, when, and how that value is being realized.

Both framings of Facebook—as either directly exploitative in some capacity, or as a mere unproductive rentier—provide useful in assessing their role within the greater capitalist totality, and offer different possible explanations for their investment in the metaverse.

### **The Crisis and the Cyberspatial Fix**

Equipped with a good sense of Facebook’s financial history, and a theory (or two) for how they capture value, we can begin to explain their predicament. As of 2020 Facebook was sitting on \$60b in cash reserves. Uninvested, that money was not circulating and at risk of devaluation. Meanwhile, Facebook’s rate of profit *and* rate of growth were declining. Facebook was headed for crisis (if it had not already arrived). In order to stabilize, Facebook needed to find a way to invest and circulate its existing capital, stimulate demand, and seek out new sites and methods of accumulation. In October 2021, they announced their rebrand and massive investment in bringing the metaverse into existence.

It was exploration into a general tendency of *overaccumulation*, “an excess of capital in relation to the opportunities to employ that capital profitably” (Harvey 1981, p.7), and its ties to geography, that led David Harvey to theorize the “spatial fix”: “Capital’s insatiable drive to resolve its inner crisis tendencies by geographical expansion and geographical restructuring” (Harvey 2022, Ch.10). Greene and Joseph have undertaken some theoretical work extending Harvey’s spatial fix and applying it to digital spaces. “Digital spaces are experimental venues for new accumulation regimes where fixes attempted elsewhere are refashioned, redeveloped, and redeployed.” (2015, p.240). Harvey’s theory was itself a nod to Marx’s “technological fix”: the competitive imperative to invest in productive technology to increase efficiency. It is my contention that Facebook’s investment in the metaverse (and the larger industry trend towards Web3 investments) can be understood as a “digital spatial fix,” synthesizing elements of both the spatial and technological fix, and further—in acknowledgement of a metaverse imagined as an

embodied and experiential “virtual reality”<sup>6</sup>—a specific subset of the digital spatial fix that I dub a *cyberspatial fix*.<sup>7</sup>

According to Harvey, the expansion or creation of new territories of accumulation via spatial fix can take many different forms, shaped by the specific demands of capital, “crucially upon whether it was the search for markets, fresh labor power, resources (raw material), or fresh opportunities to invest in new production facilities that was chiefly at stake” (2001, p.26). If Facebook’s investment in the metaverse is a cyberspatial fix, then it stands to reason, one or all of these factors is motivating that push.

The search for new markets to absorb commodities may be a broader motivation behind VC interest in developing the metaverse, but it doesn’t seem to be Facebook/Meta’s primary concern. If we accept that Facebook’s main product is the audience commodity, then their market is advertisers. But what *new* advertisers does Facebook/Meta hope to find in the metaverse? As of 2021, Facebook/Meta was already capturing an estimated 23.8% of all U.S. digital ad spending, second only to Google (Statista 2022). Whether promoting physical commodities or “digital assets” there are only so many advertising dollars to go around. The example use cases another venture capitalist, Mike Minevich, points to while promoting the metaverse/Web3 in the pages of *Forbes*, include the creation of “immersive brand awareness” and “digital brand experiences” by the likes of Dolce & Gabbana, Nike, Redbull, and other brands almost certainly already setting aside a share of their operating budget to advertise on Facebook (2022).

As we’ve already seen, the question of labor power when it comes to Facebook/Meta is tricky. If we exclude user labor, and view Facebook/Meta chiefly as a rentier, then the investment in the metaverse is not a move to increase labor surplus by finding a new or less expensive labor force, nor is it a release of existing idle labor capacity. The opposite in fact. As part of its initial investment in the metaverse, Facebook/Meta announced it would be hiring 10,000 “highly specialized engineers” in the European Union over the course of five years. However, if we accept the formulation that users provide Facebook/Meta with unwaged labor, then any time they can procure through proprietary software or hardware used to access the metaverse—time spent viewing ads and/or producing data—begins to look like a form of digitally-enabled primitive accumulation of latent social production and a possible motivating fix. Relatedly, even if we don’t accept the premise that labor value is stored in data directly, and instead take up the argument that data is a raw material—valueless in and of itself, but used to unlock value somewhere else in the cycle of value circulation—the attempt to accumulate data (as either store of labor power or as resource) appears to be a motivating factor one way or another.

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<sup>6</sup> Greene and Joseph make an interesting point about “virtual spaces” as sites of becoming, relating their use of the term (in their own footnote) to Marx’s use of “virtual” as a stand-in for “potential.” I can’t parse all of that in the scope of this paper, and am not trying to engage with it with my own use of the term “virtual.” Instead I’m using the commonly understood tech marketing term “virtual reality,” to describe a 3-D rendered immersive environment.

<sup>7</sup> In this framework, Facebook’s “Free Basics” program—wherein they distributed devices with “free internet access” in underdeveloped economies as a method of collecting more users and data, but without the creation of a fully embodied new online ecosystem—was a “digital spatial fix” but not a “cyberspatial fix.”

Facebook/Meta may not be able to onboard more users (although they would like to) or more user time (they also hope for this), but *any time* spent in the metaverse via Facebook's products will at least deliver *new forms of data* (e.g. eye movement data) they would not be able to capture otherwise. Perhaps this is promise enough to invest.

This brings us to the matter of “fresh investment in production facilities.” As I noted, perhaps data itself is a form of productive technology, one that must in turn be produced. In this sense then, the metaverse, and specifically investments by Meta/Facebook in the constant capital of hardware and software and algorithms, are devoted to first creating, and then capitalizing on this new space by using it to produce new means of production—a spatial and technological fix. Using the framework of the audience commodity, fixed capital investment into the metaverse also looks like investment in production facilities. In Greene and Joseph's account, Facebook is currently in the position of stealing and aggregating small windows of labor time that has either been bought by other capitalists (users checking Facebook at work) or is deducted from time spent on social reproduction (when used for communication or recreation). Enterprise products like personal augmented reality office spaces and virtual boardrooms feature prominently among Facebook/Meta's early metaverse prototypes, as do “event spaces” for concerts, comedy shows, and “brand experiences” to be held. If users move from using Facebook illicitly while at work to using Facebook *to work* it would result in a massive surge in the labor time and/or data Facebook/Meta is able to accumulate. Meanwhile, if Facebook/Meta is able to pen users into event spaces and serve them up to collaborators paying to provide digital experiences—a type of “experiential capitalism”<sup>8</sup>—this seems like an expansion of their ability to produce an audience commodity in an even more direct form.

Lastly, we do need to take seriously the possible understanding of Facebook/Meta as a digital monopoly rentier, and how that relates to the hypothetical new frontier of the metaverse. As Harvey writes, although capitalists need to expand spatially, they must be wary when opening new spaces. “In particular, capitalists must strive to check colonization processes which give laborers open access to free land at some frontier” (1981, p.6). Capitalists cannot allow for the productive use of land or free exercise of labor power, as it directly challenges their ability to alienate workers from the means of production and then put that labor towards the accumulation of their own profits. To that end, if Facebook is understood as one of the most successful rentiers of digital space in the current form of the internet, then their early investment in the metaverse is almost certainly an effort to extend their monopoly into whatever version of the internet comes next. And in this sense, the investment is not geared towards opening new markets, but rather extending their private ownership over digital space, and simultaneously extending their ability to collect fees on whatever new markets are established therein.

## **Will the Fix Work?**

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<sup>8</sup> Harvey notes that even though the time between the production and consumption of experiences is collapsed to nothing, “experiential capitalism” still requires massive amounts of infrastructure and labor (2022, Ch.7). Here Facebook/Meta would be providing those via the hardware and software they produce to host these events.

As Harvey writes, in order for fixed capital expenditures to be successful, “the places they serve must be attractive sites for the convergence of commodities, people, ideas, information, cultural activities and the like.” Thus far the assumption that the metaverse represents such a site is quite dubious. It seems that Facebook/Meta (and other early investors in the metaverse) have missed an important part of the equation, taking steps to create a new virtual space of accumulation, but failing to stimulate accompanying interest or demand. Perhaps they overestimated the willingness of consumers to dawn clunky headwear. Or perhaps, they failed to realize that the small slivers of labor time they were stealing were the maximum users could afford or desire to spend in a virtual space without it interfering with the demands of their lived reality. Whereas, for some time, usership of Facebook could almost be coerced via its subsumption of certain forms of social interaction (Greene & Joseph 2015), the metaverse is nowhere near that point of social capture. If Meta can’t deliver an audience, then what do they have to sell?

Looking ahead, there are also core issues yet to be resolved regarding competition. If it is true that, as in Greene and Joseph’s formulation, Facebook makes its profits from purloined labor time at the expense of other firms, it is unlikely those firms will be willing to cede more of their workers’ time (and thus labor surplus) to the metaverse. As noted, it is possible that Facebook’s awareness of this fact is why early previews of their metaverse software seem pitched directly at enterprise. Yet, it remains unclear if other firms will take the bait. Another hurdle regarding inter-firm competition is interoperability and IP. Traditionally certain firms within the tech sector have relied on a monopolistic form of enclosure (Srnicek, 2016), a walled garden approach meant to keep users “enclosed” within certain proprietary ecosystems.<sup>9</sup> Although Facebook/Meta’s involvement with the XRA consortium is hoping to overcome this tendency, Zuckerberg himself has acknowledged this may be the biggest challenge to realizing the vision of an open metaverse (Newton 2021). If it isn’t resolved, it is unclear what will distinguish the metaverse from previous, siloed, virtual worlds like Second Life and World of Warcraft, effectively limiting its growth potential.

There are also a number of changing economic factors already undermining Facebook/Meta’s fix. In response to rising inflation, the U.S. Federal Reserve recently increased interest rates to a level not seen since they lowered rates to flood the market with cheap money in response to the 2008 financial crash. This tightening of the money supply is already wreaking havoc on Facebook/Meta and much of the tech sector. Loose money has been a plaything for financial speculation, both in terms of retail investment, but also largely in the form of venture capital. Since the 2008 crash, much of this “free” investment capital has poured into the tech sector. But as the money supply tightens, investment is already drying up (Henwood 2022). This means VC money may not materialize to fund the new ecosystem of third-party applications the metaverse was meant to host. It may also be playing a role in Meta’s stock devaluation, as its declining rate of profit and Reality Lab’s massive operating losses are all the more acute to wary

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<sup>9</sup> For instance, it seems Apple’s new privacy rules limiting the amount of data third party applications (like Facebook) can collect via Apple devices, are already having a negative impact on Facebook/Meta’s revenue (Ongweso, Jr. 2022).

investors. Similarly, audience issues aside, if consumptive capacity dries up in the face of inflation, advertising dollars are likely to dry up in accordance. Lastly, much of the metaverse and Web3 rhetoric was premised on the increased adoption of blockchain-backed “cryptocurrencies” and other digital assets (like Non-Fungible-Tokens). These crypto assets by and large have been revealed as entirely speculative assets, securities tied to no productive output whatsoever,<sup>10</sup> and prone to massive fraud.<sup>11 12</sup> While there may still be a limited market for “affective” digital assets if properly cultivated (Greene & Joseph 2015), the entire bottom falling out of the crypto market is likely to cool both consumer and investment interest in the nearterm, and raise serious questions about their long term value. Altogether, it is quite possible that the crisis has arrived before its cyberspatial fix has had a chance to reach maturity.

Finally, as Harvey points out, the “fix”—like that for an addict—even if initially successful, is often temporary. Without fundamentally changing the relationship to the means of production, a spatial fix cannot overcome the contradictions inherent within the logics of capitalism, and thus any fix bears within it the seeds of its own destruction. The core contradiction of the cyberspatial fix is that despite its rhetorical framing as a primarily abstract and virtual space, cyberspace is fundamentally material. Like the internet, and all other networked digital technologies, the metaverse will live on physical servers, processors, and chips made of silicon, metal, and rare earth elements; it will be delivered through phones and headsets and other physical hardware; beamed through satellites, routers, and glass and copper cables; and all of this will require massive amounts of energy to power it. The metaverse is not a new world, it is firmly grounded on this planet—one that is already teetering on the edge of total ecological collapse. Assuming the metaverse does live up to the aspirations and soaring rhetoric of its capitalist boosters, the extraction and consumption of the raw materials needed to support such a system and the new digital economy it opens up may extend the life and expansion of the capitalist totality—but for how long?

## **Conclusion**

While it may seem that the metaverse has failed before it has even had a chance to launch, it would be unwise to write it off as dead. Overaccumulation in the capitalist system at large will exert enormous pressure and coordinate flows of capital towards any possible forms of release. Even if Facebook/Meta’s efforts fail, or the metaverse as described never comes to fruition, capital will continue to seek fixes using the technological tools at its disposal. That means if it is not the “metaverse,” we should be aware that other cyberspatial fixes will likely be a feature of contemporary capitalism now and in the years ahead.

With that in mind, I want to acknowledge that this essay was quite limited in scope, and suggest areas that further research into the cyberspatial fix could expand. Now that we have seen

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<sup>10</sup> Yet to be resolved, but the SEC is investigating (Duggan 2022).

<sup>11</sup> Molly White created an excellent running timeline of crypto and Web3 disasters, thefts, and fraud: <https://web3isgoinggreat.com/>

<sup>12</sup> FTX was just the latest in a long line of cryptocurrency scams (Ongweso, Jr., Pearson, & Strachan 2002)

how one firm has attempted a cyberspatial fix, it would behoove us to look at the larger totality of which that firm is just one player. More work should be done examining the other forces of capital arrayed behind the creation of Web3/metaverse projects. Aside from private industry we should examine the role that the state could, and is, playing in supporting these projects. Zuckerberg himself seems to lament the neoliberal abandonment of state-backed infrastructures.<sup>13</sup> Meanwhile, the Chinese state is actively involved in funding and directing their own cyberspatial fixes. More work needs to be done looking at the political economy of the cyberspatial fix.

Also, a historic feature of the technological fix has been the compression of time and space. How does that relate to digital “spaceless” spaces of automated production and immediate consumption? I didn’t touch on that in much detail here, but I do believe that the production of digital, “affective” commodities, and how rentiers stand to profit off the markets to exchange them, is worthy of deeper examination. The same is true of digital “experiential capitalism.” This begins to raise larger questions about forced scarcity and the privatization of digital space. Web3 projects like Orbit largely appear to be speculative land grabs organized around libertarian ideals, using the rhetoric of decentralization to instead recentralize power in new hands. This too is deserving of further study.

Lastly, there is still much work to be done to understand the role of labor in digital spaces. I hope to have contributed something to the understanding of the relationship between data and labor. Clearly more work needs to be done in that regard. And overall, more attention could be paid to how cyberspatial fixes—especially those developing communications and tracking to allow for increased coordination of remote work—will reorganize labor in the years ahead. If labor is still the engine of capital, and if we want to alter or halt the radiating spiral growth of accumulation, then it behooves us to understand exactly when and where labor has leverage in new digital spaces.

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<sup>13</sup> “One of the things that I’ve been thinking about a lot is: there are a set of big technology problems today that, it’s almost like 50 years ago the government, I guess I’m talking about the US government here specifically, would have invested a ton in building out these things.

But now in this country, that’s not quite how it’s working. Instead, you have a number of Big Tech companies or big companies that are investing in building out this infrastructure. And I don’t know, maybe that’s the right way for it to work. When 5G is rolled out, it’s tough for a startup to really go fund the tens of billions of dollars of infrastructure to go do that. So, you have Verizon and AT&T and T-Mobile do it, and that’s pretty good, I guess.

But there are a bunch of big technology problems, [like] defining augmented and virtual reality in this overall metaverse vision. I think that that’s going to be a problem that is going to require tens of billions of dollars of research, but should unlock hundreds of billions of dollars of value or more. I think that there are things like self-driving cars, which seems like it’s turning out to be pretty close to AI-complete; needing to almost solve a lot of different aspects of AI to really fully solve that. So that’s just a massive problem in terms of investment. And some of the aspects around space exploration. Disease research is still one that our government does a lot in.

But I do wonder, especially when we look at China, for example, which does invest a lot directly in these spaces, how that is kind of setting this up to go over time” (Newton 2021).

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