The Metaverse: How Zuck Got Carried Away

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1 Meta's Metaverse And The Market For Digital Assets

1.1 The Metaverse Defined

is essentially a series of Next Gen Web platforms Meta has developed under the Horizon brand to enter, a bit belatedly, the market for digital assets. This vast market is undergoing a profound transformation of its own, as it transitions from 2 D to 3D. The new underpinning technology behind these digital assets is Virtual Reality (VR). Avatar skins sold on MMORPG gaming platforms are one such digital asset. Avatars sold under the NFT brand on dedicated platforms, aimed at specifically spurring the blockchain-cryptocurrency market, are another such digital asset.

1.2 Monetization

Bottom line, the Metaverse is another one of those monetization opportunities which have brought riches to the IT industry over the last 60 years. There was IBM's leasing of its mainframe computers, followed by Microsoft's and Apple's licensing of software that was previously given out for free, then the Cloud's annual subscription payment for apps we previously bought comparatively much cheaper once every 5 years.

1.3 The New Product

With computer hardware, software, and services thus fully monetized and guaranteeing a greater, more steady and recurring stream of revenue ($5T to $6T per annum), with its Metaverse platforms, Meta is trying to take the lead in the industry, this time to monetize a new product, digital assets.

1.4 The New Product-Market

So-called commercial audiovisual companies selling on the Web digital assets, that is, digital images and videos, have been around for some time. Probably the biggest among them, Getty Images, already generates some $800M a year of revenue and is estimated to be worth $5B. Yet, the addressable market for digital assets can now be much further expanded many times over, by developing entirely new products and platforms, made possible by a spate of relatively new Internet, Web, and Cloud technologies introduced over the last few years.

1.5 The New Technologies

Before Meta, the first Metaverse companies, the NFTs, beginning with Roblox, realized as far back as the mid-2000s that their mastery of the recently introduced and more powerful Internet network (4G then 5G), Cloud data centers, and user-friendly programming tools would enable them to develop a more complete market offering.

1.6 The New Product-Market-Channel

As a market challenger, the NFTs developed a platform for digital assets that could not only distribute and sell them downstream but also provide upstream the self-service no code tools for users to create their own original digital assets. As a market incumbent, to not let such an opportunity slip by, Meta countered by launching its Metaverse platforms.

2 The Misnomer: NFTs Are Not Digital Assets

2.1 Price

NFTers' insight was that if they could package and label digital objects as works of art, giving customers the impression that they are worth much more than what they're really worth, they could charge a much higher price. Finding a way to guarantee the "authenticity", uniqueness of these works of art was therefore absolutely key. They did not need to look very far to find it, since the cryptography technology powering their own platforms, blockchain, was ideally suited to generate and assign a highly secure unique digital signature, the NFT token, to each digital object they carried.

2.2 Product

So that users can make the most original digital objects, they put at their disposal the learning and tool kits, which have been extensively used by the online gaming industry and Hollywood movie studios to make their 3D animated cartoons (since Toy Story in 1995) and 2D/3D AR/VR digital objects. One such digital object, an extreme case, was a collage of 5000 jpeg images put together by the artist Beeple, which sold for $69M at a Christie's auction.

2.3 Place

The smaller NFT platforms operate either as developer platforms where users can create their digital objects, or as buy-and-sell marketplaces . The bigger, more established platforms, like OpenSea, operate both.

2.4 Promotion

One is always in awe of how the NFTs have so effectively advertised on the Web, receiving billions of hits on Google Search alone. Likewise for Meta's media blitz.

2.5 The Misnomer

The acronym NFT ("non-fungible token") is a computer code, purportedly unbreakable, generated by blockchain, one of many systems used to process online transactions. It is not the digital asset itself. Rather, it is the unique number used i) to identify the digital asset and, ii) most importantly, to make it unreplicable.

Another blockchain acronym is FT ("fungible token"), which differs from the NFT acronym in that the FT-coded digital asset is replicable, i.e. a bitcoin can be copied into other bitcoins.

Unfortunately, the NFT-coded digital asset can only i) be run on blockchain and ii) be paid for in cryptocurrencies. In other words, NFT digital assets prices are solely determined by crypto prices (which have fallen 3-fold) rather than by demand and supply in its own market.

3 Meta's Competitive Threats

3.1 Meta's Competitive Advantage

The underlying Open Source technologies (blockchain, 3D AR/VR, Unix, Java,...) being the same and freely accessible, where the big predators, beginning with Meta, have a competitive advantage over their smaller NFT rivals is in both the money and customer base they have:

. their cash holdings in the tens of billions of dollars, generated by their cash cows, can be spent to jumpstart product development and to wage a protracted marketing campaign to wear out their smaller NFT competitors.

. their customer base of billions of users are always receptive to try out the type of high quality products they are accustomed to getting from them.

3.2 Meta's New Product Lineup

Each Metaverse platform Meta has created, under the Horizon brand, could compete directly against the major Internet companies: Horizon Venues against Amazon in eCommerce, Horizon Workrooms against Microsoft's MS Office and Dynamics platforms, and Horizon Worlds in gaming, where NFTs will first be offered.

3.3 Meta's Current Competitors

There are 2 distinct products, which have been developed to serve this new channel:

. NFT Blockchain platforms
. Meta's Metaverse platforms

Although both are essentially powered by the same underlying Internet, Web and Cloud technologies as we will see throughout this page, both platforms have developed distinct market offerings, in order to serve their respective target markets.

3.4 Meta's Future Competitors

It will not be long before the major Internet companies will come up with their own Metaverse offerings, which they will adapt to their respective businesses. For example:

. Microsoft has added what it calls a Metaverse layer to its Office 365 with Mesh and Dynamics 365 with Connected Space. It has acquired Activision Blizzard for $69B to position itself in the biggest Metaverse market, the online gaming market

. Twitter was acquired by Elon Musk for $43B to enter the Metaverse market

3.5 The Metaverse as a Business

Even if Meta has developed its Metaverse products, it still needs to develop the new multi-billion dollar businesses, around its Horizon amd Smart Home platforms:

. its Horizon Venues platform to compete against Amazon's $468B eCommerce business,
. its Horizon Workrooms platform to take on Microsoft's $168B Enterprise business
its Horizon Worlds platform to go against the entire MMORPG gaming industry
. its Smart Home Meta Portal platform to go against the Smart Home/Smart TV industry

Meta will go after that part of the market which has not yet been tapped, but so will these companies

4 Meta's Market Opportunities

4.1 Ansoff’s Product-Market Expansion Grid

If we use Ansoff's product-market expansion grid, we can say that Meta is pursuing, through the Metaverse, a typical "new product-current market" strategy, by offering its new products to the 5 current markets, which are its core Social Media and 4 well-established markets it wants to enter, namely the Consumer, Business, Gaming, and Fintech markets. As listed below, of these 5 generic markets, there's a total of 6 target markets, 5 of which are entirely new busineses with new economic and revenue models Meta must put in place and operate:

In more detail, Meta is targeting the following 6 markets:

. the Social Media target market which will continue to be its core business and cash cow. In the near future, we believe Meta will most likely operate 2 social media platforms On the one hand, what it calls its "family of apps", namely its Facebook, FB Messenger, Whatsapp and Instagram platforms will serve a mature market, comprised of users who do not want to change their habits. With their total customer base of 3.7B MAU users, ad

revenue totaling $117B in 2021, and still room to grow, these platforms will continue to be nurtured.

On the other hand, with its Metaverse Horizon platforms, it is targeting what will be the 2 most important demographic groups over the next 10 years, the Millenials and the Gen Zers. The key innovation Meta brings is to provide these younger and more digitally literate groups of users with the type of easy-to-use no-code/low code tools to help them create their own platforms, either as their own social media platforms, or as we saw earlier with Wendy's, as their own business platforms. There were some 10 000 such platforms, which it calls "worlds", which have been created since Horizon Worlds was launched in September 2021.

To the above horizontal approach, Meta has created a number of vertical platforms to serve the following target markets it wants to enter:

. the Business target market, now dominated by Microsoft and Slack. Meta's products are Meta Workplace and Horizon Workrooms for the Office market, Meta Portal for the Video and Meta Novi for the Digital Payment market, Horizon Home for the remote work market There is also the need to be backward integrated with a Cloud Infrastructure platform, to compete against Amazaon's AWS, Microsoft's Azure, and Google's Cloud Platform

Part of the broader Consumer Market:

. the Retail target market, where physical and online stores seamlessly interact. It is dominated by Amazon, Walmart, Apple, Shopify, and the major retail chains. Meta's products are Horizon Venues and Horizon Worlds which is both a socal and ecommerce platform (Wendy's joined)

. the Smart Home and Smart TV target market, through its Meta Portal app and platform, to goagainst Disney, Netflix and the powerful MSO's such as Comcast and AT&T

. the Gaming NFT target market, through its Horizon Worlds platforms and Oculus 3D AR/VRheadset, to go against Microsoft's Acitivision Blizzard online games and Xbox consoles

. the Fintech target market, through its Meta Novi product, as an alternative to Apple Pay and Google Pay

4.2 Meta's 4 Revenue Models

Firstly, Meta will most likely extend its formidable ad tracking engine, which in fact tracks users' searches, to help it sell its new Metaverse products, by adding search features adapted to each of its new platforms, such as a product search engine on its eCommerce platform, Horizon Venues. Secondly, it will put in place new dynamic pricing, billing and payment systems, based on the following revenue models:

. the advertising revenue model for its existing family of apps, catered to its core consumer social media market, from which it generated $117B of revenue in 2021

. the transactional revenue model for its eCommerce platform, catered to the consumer market, which is dominated by Amazon

. the subscription revenue model for its new products and platforms, catered to the business market

. a hybrid transactional and subscription revenue model for its Horizon Worlds gaming platform, in which it will fit its NFT offering, as well as for its Smart home and Smart TV market

5 Meta's Perceived-Value Pricing Model

Pricing Method Meta uses the standard pricing method for online ads, the Cost per Thousand Impressions or CPM (impressions are full ads shown on a page)

Product Offering Meta has developed a distinct product for each of the 4 stages of what we can call the customer's own value chain:

. Stage 1 - Advertising This first stage covers the entire ad campaign process, from contentdevelopment to ad placement. For example, a this early stage, brand awareness ads are priced at a CPM of only $3 per thousand impressions

. Stage 2 - Analytics This second stage involves the data collection and analysis on thecustomer's customers's buying habits based on their demographic profile. At this second stage, Video Views and Traffic are generally priced respectively at $4 and $6 per CPM

. Stage 3 - Engagement This third stage involves the clicks the customer's customers make to open up the ad or access the customer's website. The customer immediately engages by making contact, online and/or physically, with his prospects. The clicks are used as metrics only for the final sales conversion stage below

. Stage 4 - Sales Conversion This last stage is the most important, when the customer'scustomers finally make the decision to buy the product. Each sales conversion stage, namley Category Sales, App Installs, Conversions, Lead Generation, is gradually priced higher, respectively at $11, $15, $17, and $25, reflecting the higher prices Meta's customers are willing to pay for helping them actually make the sale, not just for building up user awareness of their products (the ads) and providing insights on users' behavior (the analytics)

Kotler calls the type of pricing Meta applies, perceived-value pricing, where prices are scaled up based on a customer's perceived value. On the graph,we clearly see that the highest generic value is given when a sale is made, at the final sales conversion stage

6 Meta's Cash Position

A quick reading of Meta's SEC 10-K filing for 2021 shows in fact that it is still a very healthy company, able to sustainably generate enough cash to finance its strategic realignment.

6.1.Cash

Meta's 2021 free cash flow reached nearly $40B. Its cash in hand including marketable securities was at $48B. Most importantly, had it not spent $45B to buy back its stock, its cash position would have totaled a whopping $93B. In short, it has more than enough cash to finance its Metaverse project, in which it expects to invest nearly $40B in 2022

6.2 Cash Cow

Meta generates practically all of its cash flow from its cash cow, its "Family of Apps" business, comprised of Facebook, Messenger, Whatsapp and Instagram, still accounts for 98% of total revenue of $118B with the remaining 2% coming from its "Reality Labs" AR/VR Oculus headset business.

Meta's ad revenue drivers are its 3.7B monthly average users (MAUs), daily average users(DAUs), and the DAU/MAU ratio, or more precisely the communities to which they belong and the amount of commerce they engage in online. The bigger the size of these communities and the more they shop, the more advertising Meta can sell. This is what happened in 2021, when Meta's revenue per user, the ARPU, increased by 50% compared to that of March 2020 during the Covid lockdown. We think that what Meta is aiming to achieve with the Metaverse is to advertise and sell more to these communities on its commerce platforms, by transforming what is its franchise, its social media platform, into its Next Gen platform, the Metaverse.

7 Zuck's Mea Culpa

The 2022 Earnings Call It took Mark Zuckerberg a year and a half and Meta's vertiginous 70% market cap fall from its peak of nearly a trillion dollars, to admit he may have gotten quite seriously sidetracked in carrying out his Metaverse project.

7.1 The Original Metaverse Strategy

Yet, in July 2021, when it was first presented, the strategy he laid out appeared to be very sound. It had 2 key components, namely:

. Metaverse Platform The strategy's main focus was the creation of a Next Gen platform,which had 2 very clearly defined objectives. Firstly, the new platform would be used to drastically improve on its 4 existing "Family of Apps" platforms (Facebook, Instagram, Messenger, and Whatsapp). Secondly, it would be used to ultimately replace them by its new Horizon platforms. In both cases, the final aim was very simple. It was to use the Next Gen platform to serve the next generation of users, the Millennials and the

Gen Z's who are set to replace, over the next 10 years, the Baby Boomers and the Gen X's as Meta's 2 main user groups

. Metaverse Headset The Oculus headset, acquired in 2014 to enter the device side of the online gaming market, was to be revived, possibly at first to attract gamers to its Horizon Worlds platform. The headset was in fact designed to be a gaming console (it came with a joystick), run entirely on VR, a feature that those offered by the market leaders - Xbox for Microsoft, Playstation for Sony - were yet to be fully equipped with. It is the technology, Virtual Reality (VR), powering the headsets, not the headsets themselves, which Meta was interested in. Meta's intention was to go after the Big Prize.

Its advanced Oculus headsets were only to be used as an entry point to penetrate the broader $100B, 3B user-strong online gaming market which was transitioning to VR. Both of the market's segments, gaming consoles and online gaming platforms, each generated in 2021 $50B of revenue, and were expected to double in size by 2028. But due to better scale and scope, platforms tend to generate better profitability and ROI. Hence, Meta's coupling of its Oculus headsets to enhance rather than replace its main revenue generator, its Horizon Worlds platforms, made sense.

To the extent that the Horizon platforms appeared to be ready to be used at the time of the presentation in July 2021 (one could access and use them), one expected to witness a very quick market adoption, the bulk of the market being Meta's own 3.7Busers with whom it can engage directly at practically no extra new customer acquisition cost

7.2 The Mistake

Instead, one had the impression that Meta decided for some reason to center its strategy on the headsets alone, rather than to use them to promote its platforms, which, as it rightly laid out in its original strategy, represent the only real source of revenue. The result has been a sea of red ink. In all, over 2021 and 2022, it spent a total of $28.3B to generate $4.4B of revenue, all of which came quasi exclusively from the sale of its Oculus headsets. The markets expected to see at least 7 times more revenue or 7 times less costs, in order to break the business even after 2 years, and with all of it coming preferably of course from its Metaverse platforms

7.3 The Spillover on The Core Business

What made matters worse was to see for the first timein 2022 a steep 25% drop in the operating income of its core Family of Apps business versus prior year. This was due quite simply in large part to Meta's misallocation of resources and of management attention away from its core business, which still accounted for 98% of total revenue.

7.4 The Real Risks

There are siginificant hidden risks in both its core Family of Apps business and its Metaverse venture, into which it has poured good money after bad over the last 2 years (hidden risks tend to be ones we initially deny). These risks are as followes:

. Family of Apps Business: like Google, Meta overspent in 2022 on its core business, wrongly thinking that the exceptional growth it witnessed in 2021 due to the lockdown would continue. Instead, the opposite happened, with 2022 revenue stagnating, both found themselves with a quite significant cost mismatch relative to revenue. To correct it, both have announced steep cost cutting measures in their core businesses: i) staff cutbacks in the 10% to possibly 20% of their total headcount and ii) a downsizing of their data center infrastructure. By next year, it should recoup the 13% point operating margin it lost due to the overspending. However, as we explain below under point 8, its renewed performance hinges on ii) its stand on the App Tracking transparency issue, which would require a complete change of its business model, ii) on intensified competition from TikTok, which has carved out an entirely new market segment in video "shorts", requiring a new form of advertising which Meta does not yet master.

. Metaverse Venture: even if the markets are relatively confident that Meta will fix its core business, they are less so regarding its Metaverse venture. They will need more tangible signs on Meta's part that it will drive down costs to the ground, by as much as 86.4% from the $15.9B it spent in 2022 to break even. From a product standpoint, Meta must develop products where its strenghs are, in platforms, not in devices. It appears to be struggling to develop its Oculus headset, which contains one 12-chip PCP board, a camera with weak pixel count and resolution, a bluetooth connection. By contrast, Apple's iPhone 14 has 46 AI multi-core chips on 2 PCP boards, 3 neural engine-operated cameras, and 5G connection (see Apple case study, point 9 "The Core Excellence").

In all, had Meta not overspent in 2022 in its Family of Apps business by $13.4B and in its Metaverse venture by $13.8B, for a total of $27.2B, its operating margin would have reached $56.0B on revenue of $116.6B. No wonder the markets were angry.

After announcing a new focus on what Zuck calls "efficiency", reflected in the massive headcount cuts he made, Meta's stock rallied, regaining $216B of market cap.

8 The App Tracking Transparency Question

Miraculously so, Meta has come out relatively unscathed from its incursion into theMetaverse. Its core Family of Apps business still accounts for 98% of total company revenue and the $13B spike in its costs and operating expenses, due to overhiring, has been addressed by (brutal) staff cuts, which would bring back headcount to pre-pandemic levels (after a first wave of 11k layoffs announced at the beginning of the year, another 10K to 15K layoffs are expected to take place).

Likewise, problems it encountered in 2022 regarding the core business's revenue are for the most part surmountable. These concern a drop in demand due to the recession, which it cannot do much about, and a drop in the average price per ad which it managed to offset by increasing the volume of ad impressions and in the near term by offering a series of new higher value-added ad products better adapted to video content, particularly short videos, which have become the dominant media format today.

8.1 User Privacy

A third problem, which it claims to be responsible for a revenue shortfall of $9B in 2022, concerns what it calls, wrongly so in our view, "limitations on our ad targeting and measurement tools arising from changes to iOS". In other words, Meta is squarely laying the blame on Apple for giving its users the option to cut their devices off from the type of user tracking on the Web that Meta has been undertaking without their prior consent, monetizing the very private data collected on them to produce ads for its customers, from which it now reaps a cool $115B a year of revenue.

8.2 Customer Trust

However, we feel that the underlying issue behind the App Tracking spat between Apple and Meta is not about user privacy but about customer trust. The double digit growth of Apple's rival Apple Search Ads offering on the App Store, which scrupulously protects its users' privacy, is proof that giving full control to users of their privacy brings in more, not less business, contrary to Zuck's claim.

8.3 Customer Satisfaction

This goes to show that customer satisfaction, which is what makes the success of a business, always begins, first and foremost, with building customer trust, that is customer respect. Everything else, the product, the service, follows from it.

8.4 Just 2 Questions

In this regard, there are 2 questions which need to be addressed by Meta:

. Question 1 To Its 3.7B Users: Do they no longer trust Meta for not respecting their privacy?

. Questions 2: If the answer is overwhelmingly yes (it should be), what should Meta do to integrate user-controlled privacy into its user tracking tool?

9 The "Great Product" Graveyard

The Ford Edsel, Blackberry's smartphones, Yahoo's search engine, MySpace's social media platform are among those products which the firms that made them thought to be "great" Then better competing products emerged: a Tesla, an iPhone, Google, and Facebook. The key to their success has been hammered by any marketing textbook, but

apparently followed by very few companies: the winning product is one that the customer, not you, perceives to be great.

In Meta's case, the perception of its 3.7B customers of what a great product is has changed. They no longer want Meta to do as it pleases with their personal data. Yet, Zuck continues to not want to listen to them.

Maybe he should revisit the graveyard where those once "great products" were dumped.