

LUISS



Department
of Business and Management

Course of Digital Marketing

Current perspectives and future outlooks for brands' use of NFTs and their impact on marketing

Prof. Maximo Ibarra

SUPERVISOR

Prof. Luigi Laura

CO-SUPERVISOR

ID No. 728881 – Kristina Paolovna Girlando

CANDIDATE

Academic Year 2021/2022

Table of Contents

<i>Introduction</i>	3
<i>Chapter 1. Current digital trends at the global markets</i>	6
1.1 Current digital trends	6
1.2 What big companies are heading to?	8
1.3 Implications: financial, marketing and business.....	18
<i>Chapter 2. Deep-dive into the metaverse theory</i>	24
2.1 What is NFT?.....	24
2.1.1 NFT types and marketplaces	25
2.1.2 Use of NFTs.....	26
2.2 Blockchain	27
2.2.1 Blockchain platform types.....	29
2.3 Metaverse.....	30
2.4 Metaverse and NFTs as complementary concepts	32
2.4.1 Ways to leverage profits in the metaverse.....	34
2.5 Examples of metaverses	35
<i>Chapter 3. Gucci case study and future of NFT</i>	37
3.1 Gucci case study	37
3.2 SWOT-analysis.....	47
3.3 Future of NFTs	52
<i>Conclusion</i>	56
<i>References</i>	58

Introduction

The de-materialization of fashion industry is gaining momentum and it will change the way this sector operates very soon. Nowadays more and more big companies are entering into the digital meta world. Many luxury brands already experienced or are about to experience advantages of the blockchain products. Such well-known names as Gucci, Louis Vuitton, Burberry, Bulgari, Nike, Coca-Cola, Ferrari and many others are spending fortunes to be on the wave of this trend. The most interesting and the least studied direction of this is NFT concept. Why do brands go to release their NFTs if it seems to be so understudied and vanished?

This subject was chosen for the analysis as it is one of the mavericks' topics of the moment. Nowadays many people spend a lot of time in the virtual world and this amount would just grow (İLDAŞ, 2022). This is the reason why companies find this extremely beneficial for them to use metaverse products in their marketing strategies. Moreover, for new generations, the use of metaverse and existence in digital world becomes an ordinarily reality, so in the closest future majority of the potential consumers would be a part of this space, so brands should adapt in order to target them correctly. The actions taken by the companies confirm this belief. In the end of 2021 Mark Zuckerberg, the founder of Facebook, transformed his company, changing its name to Meta Platform (Meta, 2021). He stated: "We see the advancement of technology as a more natural way of communicating with each other. In the future, you will be able to instantly teleport from your commute to the office, to a concert with your friends, or to your parents' living room as a hologram" (Meta, 2021). Metaverse can transform the way the life goes now. The development of these technologies, possibilities of having a real ownership of digital assets, bringing them to the real world, experiencing a full immersive virtual space, will change the way people live, work, learn, shop and communicate – this is just a matter of the time.

Operating in the metaverses companies could connect their digital presence and the real-world presence in a new way. They can get new opportunities in content creation, marketing strategies, products development, services offering and revenue generation. Using metaverse brands can build new buying journeys, which in turn could empower them to become active participants in the purchasing process again. Moreover, each interaction with consumers would generate a useful information flow, which can facilitate a new community creation. Entering in this sector at the early stage will give brands a distinctive early-adopter advantage, allowing them to have a higher market share (Hackl et al., 2022).

NFTs or non-fungible tokens are based on the concepts of decentralized finance and blockchain. This technology provides perfect opportunity for selling and purchasing virtual goods,

being efficient, transparent and autonomous. Moreover, with the use of NFTs it is impossible to copy or to counterfeit the items created; they cannot be stolen or replaced. Existing in metaverses, tokens provide a ground for a digital fair economy, which can benefit all the participants.

However, due to novelty of the concept, there are still many shortcomings, such as lack of regulations, high market volatility and scarcity of information available, what creates a scepticism, when it comes to implementation of this tool.

The **purpose** of this work is to deep-dive into the NFT concept, analyse current trends in the global market, find actual and possible applications and understand the impact which the use of this tool in the brand's marketing strategy may have: to evaluate strengths and weaknesses, which exist.

This subject is relatively new and understudied, but it is rapidly gaining momentum and is about to change the world of fashion we used to know, what makes it interesting for further discussion and analysis. Moreover, with the lack of proper researches available, this work may have a significant importance for future studies as it will include main concepts and current dynamics of NFTs' applications and their development.

The paper is focused on answering following questions:

- What does NFT mean and why this topic is becoming so prevalent?
- What are the actual and possible applications of NFTs?
- Which impact the use of NFTs may have for brands?
- What is the possible future of NFTs in fashion industry?

The literature available is really neglected; sources, which were used for the research are based on relatively new materials, which are tend to change frequently with further development of the topic. The **methodology** for this study is an analysis of existing metaverses and marketplaces, its players, in particular Gucci case study. The analysis of the reports, released by the financial and analytical companies such as JP Morgan Chase, PwC, McKinsey was made, along with the study of the wide range of case studies and analysis of the monographs related to the technological aspect of the topic. The SWOT-analysis on the applications of NFTs was made and the critical discussion on its efficiency was delivered.

First chapter of the work is dedicated to the current market trends in the luxury industry with the focus on marketing and financial implications of the use of NFTs and metaverses.

Second chapter introduces the theoretical part of abovementioned concepts, explaining the technology, on which NFTs are based on – the blockchain system – terms themselves and main platforms, which are used for creation, purchases, and for actual usage of them.

Third chapter is a Gucci case study and SWOT-analysis with critical discussion of the future of NFTs and metaverse's application by the main fashion industry players, its advantages and disadvantages.

Chapter 1. Current digital trends at the global markets

This chapter is dedicated to an overview of current digital trends in the market as more and more companies with an enormous market capitalisation are entering in the new virtual reality world. NFTs and metaverse terminology does not sound anymore as something related only to gaming industry, but becoming an essential part of our everyday life. Why does it happen? And what companies are looking for in the online universe?

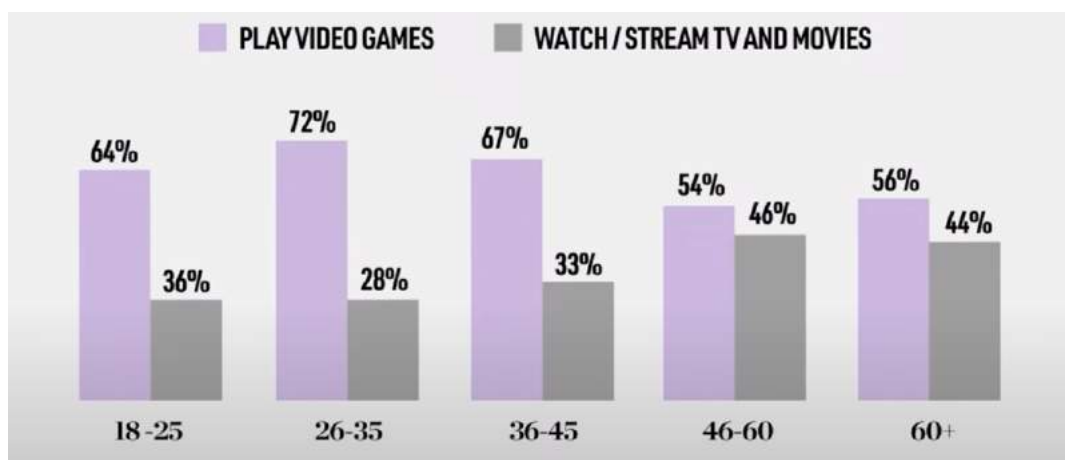
1.1 Current digital trends

Nowadays many people live in the world that can be called metaverse. This is something free from the two-dimensional internet, people were used to know before – it is new internet breaking three-dimensional environment (Hendaoui et al., 2008). With the changes accrued in the world, fashion brands are also heading to achieve this dematerialization concept, which is going to change the way this business works.

Fashion industry is an important part of the life of everyone, the way people dress says a lot about who they are. And this industry goes through all the changes, which accrue and changes respectively. With the pandemic the world stayed home, but there still was the place to express yourself – metaverse (McKinsey, 2020).

Coming from the gaming world, which accounts already 3 billion people, spending over 100 billion dollars a year for digital goods, metaverse has grown its importance (Tapscott, 2021). Nowadays, people choose to spend their time playing games over spending time watching movies.

Figure 1. Preferences in the choice of entertainment



Source: BoF insights from Limelight Networks, Newzoo, Statista, Motion Picture Association

People prefer to express themselves in the web, showing their personalities through items they use and the way they dress their avatars. This place became a perfect playground for fashion brands to reach new consumers.

Everyday news says about new launches of digital tokens made by famous fashion houses, virtual fashion shows are taking place as well as virtual stores opening their doors for clients.

Attorney Tal Lifshitz, a partner and co-chair of the cryptocurrency, digital asset, and blockchain group at Miami-based Kozyak Tropin & Trockmorton (KTT)¹ says "It's trendy, it's fun, and it's cutting-edge technology that actually has the potential to redefine the way these brands do business and engage with their consumers" (Farrington, 2022).

Currently NFTs are in the early stages of becoming a major part of our lives and with the development of Web 3.0 after some period of time they will spread to different spheres of it.

The term of increased adoption can perfectly explain the phenomenon of NFTs skyrocketing growth (Wisdom et al., 2013). Example is very easy – if mobile phone is used by only one person, it is useless, if two people are doing so – the value increases. But if millions of people are current users, its value becoming essential. This is the impact of increased adoption and it explains what is happening with NFTs now.

According to Lydia Hylton, an investor at Redpoint Ventures², companies are ultimately driven by the potential for earnings, and NFTs are a new revenue stream and engagement tool for brands (Farrington, 2022). Moreover, this tool gives a new way to increase engagement with customers. NFTs can be used to reward and incentivize consumers through innovative gifts, exclusive access, and more.

Meta world now is becoming more and more prevalent, people are spending more and more of their lives in virtual worlds and brands are used to follow current trends. Dr. Dustin York, an associate professor of communication at Maryville University, explains that it always was the case: "When customers gravitated toward malls, brands followed. When customers gravitated toward e-commerce, brands followed. And when customers are now gravitating toward Web 3.0, digitally native brands are following, giving even more legitimacy to NFTs". According to him, "NFT hype cycle" is taking place now, and we are in the stage of the fast growth. There will be a drop in the famous NFT art and an increase in demand for more practical usage of the system.

¹ A Complex Commercial Litigation Law Firm in Coral Gables, Miami

² Venture capital firm focused on investments in seed, early and growth-stage companies

"Critics will then call NFTs a fad, just like they called e-commerce a fad during the dot-com bubble. NFTs will then rise back up and be part of our everyday lives" (Farrington, 2022).

According to NFT investor Andrew Lokenauth³ digital world is the future and that is the reason why famous brands are spending great amounts of money to enter in it. Possibilities which digital world is giving are endless – this is why brands are spending big.

The world is taking a new shape and nobody knows yet, where it will go.

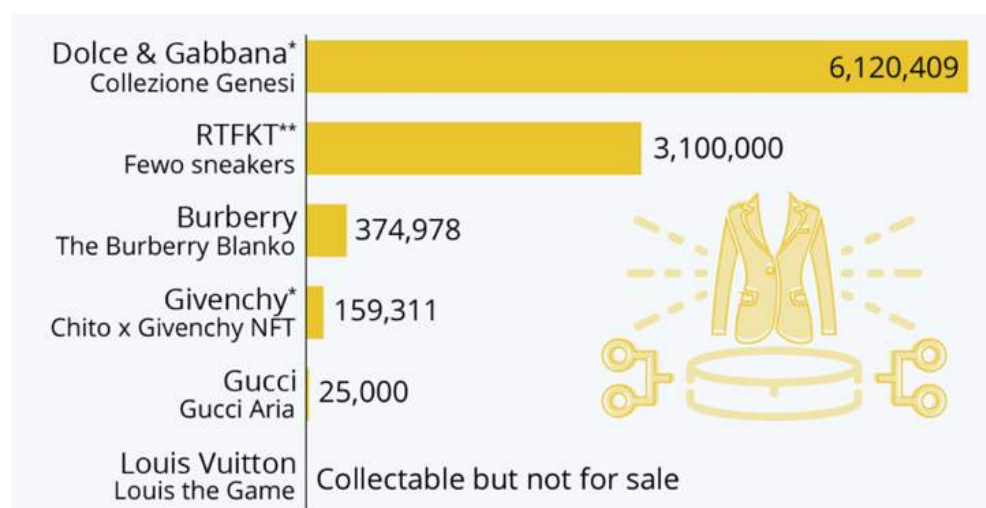
1.2 What big companies are heading to?

What big brands are looking for in the digital world? As it was already mentioned, being on the wave of current trends is something that keeps brands vital. Entering into the new market companies gain new consumers, get new possibilities in the way they do business. All these lead to increase in profit and loyalty.

Currently, meta world allows companies raise huge amounts of money going into NFTs.

To describe it in a more practical way, the chart with data gathered by Statista shows an overview of different NFT sales by luxury and collectable brands, some of them bringing in millions.

Figure 2. The Luxury Brands Selling NFTs, \$



Source: Statista research

³ Vice President and Head of Financial Reporting & Accounting Policy in Cover Genius
<https://www.linkedin.com/in/lokenauth/>

As an example, Dolce & Gabbana launched its NFT collection (Collezione Genesi⁴) and earned more than \$6 million on a hybrid physical/NFT model. Buyers actually bought the physical item and the NFT together, appealing to the more traditional high-fashion clientele and explaining the high price achieved.

The collection Fewo Sneakers by collectable brand RTFKT⁵ – recently acquired by Nike, which became an essential part of the brand – runs on a similar model and brought in more than \$3 million. The sneakers can be worn in real life and in the Decentraland metaverse⁶. Items, produced by Burberry⁷ can be used and resold in the digital party game Blankos Block Party.

Givenchy⁸, Gucci⁹ and Louis Vuitton¹⁰ on the other hand have chosen the more traditional path by selling NFTs based on graphic designs from a collection, a movie featuring their fashion and a video game that they have brought to market, respectively. However, the sales proved less profitable, bringing in only around \$159,000 for Givenchy and \$25,000 for the movie NFT by Gucci.

Last examples show the initial idea behind NFTs being collectibles, which value depends on its exclusivity created by the issuer.

While pictures, designs, films and games are open for everybody's' eyes, can be download, shared and saved, the NFTs, being created inside the blockchain system, are unique and can be issued by the big brands only once, what in turn guarantees exclusive ownership rights for the buyers and in a long term only increase in value.

Brands' use of metaverses and NFT marketing is not anymore a question of if, but now it is just a matter of time. Tech giants, the most prestigious fashion houses and customers are getting more and more into this new reality. It cannot be seen anymore just as a temporary wave of "hype" (Lee, A., 2021).

⁴ UNXD: *Digital Luxury & Culture NFTs*. UNXD. (2022) from <https://unxd.com/drops/collezione-genesi>.

⁵ RTFKT: *Defining Art x Fashion in the Age of NFTs*. (2022) from <https://nfts.wtf/rtfkt-defining-art-x-fashion-in-the-age-of-nfts/>.

⁶ Twitter (2022) from <https://twitter.com/rtfktstudios/status/1381662618000187396?lang=en>.

⁷ *BURBERRY-DROPS-NFT-COLLECTION-IN-MYTHICAL-GAMES'-BLANKOS-BLOCK-PARTY*. Burberry Corporate Website. (2022) from <https://www.burberryplc.com/en/news/brand/2021/Blankos.html>.

⁸ *CHITO x GIVENCHY NFT*. nft.givenchy.com. (2022). from <https://nft.givenchy.com>.

⁹ *Gucci Launches First NFT, a Film Inspired by Recent Aria Collection*. HYPEBEAST. (2022). from <https://hypebeast.com/2021/5/gucci-nft-debut-film-aria-collection-inspired-announcement>.

¹⁰ *Louis Vuitton Launches NFT Game 200-Year Anniversary Celebration*. Highsnobiety. (2022). from <https://www.highsnobiety.com/p/louis-vuitton-nft-game/>.

Analysts describe metaverse as a great economic force that could radically change the common market habits and the way the business is done – with NFTs a currency for defining value (Grider, D., 2021).

According to Morgan Stanley NFTs and meta games could affect a luxury group's total addressable market, increasing it more than at 10% in eight years, where digital demand for fashion and luxury brands reaching \$50 billion by 2030 (Wilson, 2022).

With such tech companies as Meta, writing new rules of the digital reality and the most well-known brands as Coca-Cola, following them, creating NFT assets storage and engaging its customers, other companies, which have an intention to be at the same wave with a new generation of potential consumers, which grow up using meta world – have an urge to establish their presence in virtual markets.

More and more brands are entering into the NFT market and it seems that before the end of this year all the big companies would start using this tool (Balis, J., 2022). There are some more examples we can see nowadays.

Sportswear giant Adidas¹¹ made a drop of its NFT for both digital and physical products. The ownership of tokens gave an access to virtual wearables for the blockchain-based gaming world. Later, the brand and fashion house Prada launched together an NFT project that allowed fans to participate in creation of their own designs.

This example also demonstrates new ways of collaborations and interesting potential convergences between different businesses. Using this tool brands can surprise their customers and provide them with the most unique experiences and products.

Luxury automotive brand Lamborghini¹² launched its space-themed NFT collection and the 360 Lamborghini Aventador NFT collection. And again, the brand connects these tokens to the real world, as in 2019 company sent a carbon fibre composite for research purposes to the International Space Station, as a part of a joint research project, so objects which buyers purchase as NFTs have actually been to space and can be available both in physical and virtual worlds.

¹¹ *Adidas: Metaverse*. Adidas. (2022). From <https://www.adidas.com/us/metaverse>.

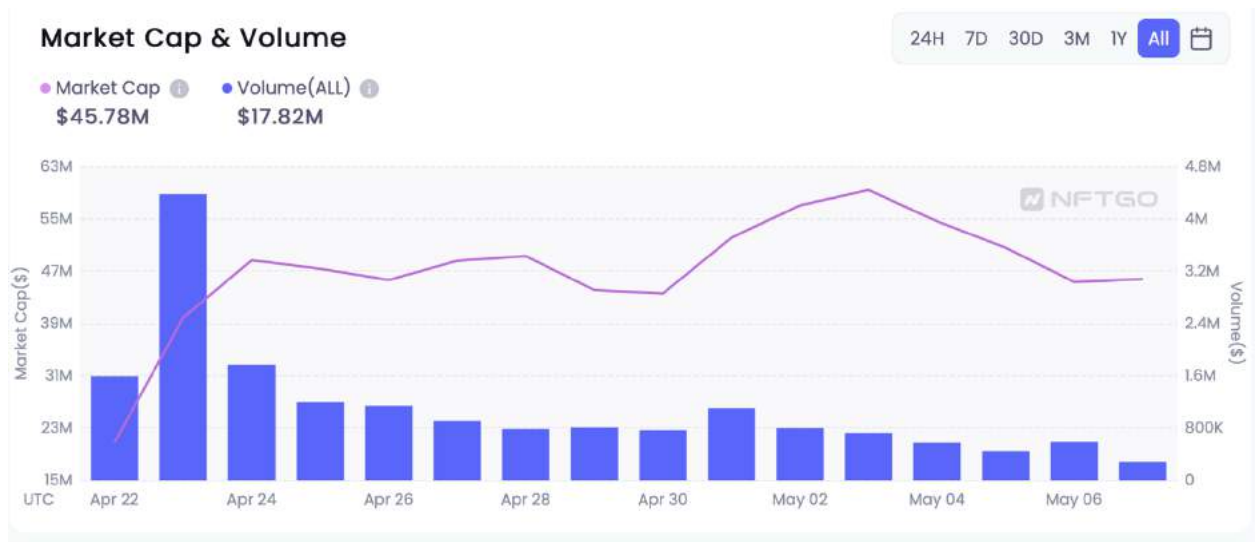
¹² *NFT Lamborghini*. Lamborghini. (2022). From <https://nft.lamborghini.com>.

Nike went even further and actually acquired RTFKT¹³ Studios, which later called “a leading brand that leverages cutting edge innovation to deliver next-generation collectables that merge culture and gaming.”

The company sells digital items like sneakers in the form of NFTs. Nike included the logo of the RTFKT into its own brand logo. Nike CEO John Donahoe has called this deal as another step "to serve athletes and creators at the intersection of sport, creativity, gaming and culture."¹⁴

This collaboration was one of the most successful in the history of metaworld and has one of the highest market capitalizations on the marketplaces. During the latest launch, in the period of less than a month, sales volume reached 17 million dollars (NFTGO, 2022).

Figure 3. Market capitalisation and volume of RTFKT x Nike April drop



Source: NFTGO

Samsung instead has announced that future TV lineup will have an extensive support for NFTs. The company stated that “With demand for NFTs on the rise, the need for a solution to today’s fragmented viewing and purchasing landscape has never been greater. In 2022, Samsung is introducing the world’s first TV screen-based NFT explorer and marketplace aggregator, a groundbreaking platform that lets you browse, purchase, and display your favorite art — all in one place” (WeRSM, 2022)

¹³ RTFKT. Rtfkt.com. (2022). From <https://rtfkt.com>

¹⁴ NIKE, Inc. Acquires RTFKT. Nike News. (2022). From <https://news.nike.com/news/nike-acquires-rtfkt>.

From all the examples we can see that the scale of the usage is large and nobody can stay outside – after very small period of time this will become the new reality.

As it was already mentioned, NFT concept goes together with metaverse idea, as brands are not only using NFTs as collectables, which can be purchased, but are trying to make users really use them. Here where meta worlds come into place. Brands can extend NFT possibilities, using them in virtual reality, giving them “life”. In previous examples we’ve seen some traditional ways of using tokens – selling them as collectibles – and some extensive opportunities, when brands are giving to buyers a possibility actually to use these items in metaverse.

As metaverse allows people to use all the digital assets they have, NFTs allow them to create a real value of the things and provide a real ownership ground. Tokens represent real items and meta world is the ideal place to use them and to extend opportunities of it.

Basically, we are entering in the era, where we have two different realities: our offline world and its virtual representation (Calandra, C. & Chiu, E., 2021). And with years, more and more people, especially young generations are eager to use the second one. This is a perfect playground for brands, as they can create products with less costs, but get higher revenues.

In the metaverse brands can create and participate in all the types of activities, which our imagination can allow us to think about: exhibitions, fashion shows, masterclasses, product launches and, of course, games (Hootsuite, 2021). Some brands are creating its own metaverses, where they set their own rules, others use already existing ones, where the number of users exceeds billions, what makes them a perfect place to reach new audiences.

To better understand the idea, here are some more examples of brands’ presence in the metaverse.

Fashion house Gucci made a virtual luxury exhibition¹⁵, where users could acquire digital NFT versions of real products, which brand has. As soon as all items were sold, buyers started to resell them for a higher price in the form of auction. One of the virtual handbags was sold for \$4,100, which is \$700 higher than the retail price of the offline version¹⁶.

¹⁵ *Gucci Garden*. (2022). From <https://guccigarden.gucci.com/#/en/>.

¹⁶ *A virtual Gucci bag sold for over \$4,000 — more than the real deal*. Inputmag. (2022). From <https://www.inputmag.com/style/roblox-gucci-bag-handbag-purse-digital-virtual-nft-sold-4000>.

Another luxury brand Balenciaga released¹⁷ a digital clothes line for a Fortnite game. According to the analysts, this gaming segment can add around \$10–\$20 million to the luxury goods market.

As it was described, metaverses combined with NFTs' use can give endless opportunities for brands as everything what can be imagined can be created and implemented in the virtual reality.

We can see different ways companies are using NFTs to collaborate with other brands, grow its presence, gain new audience and extend possibilities. All what was mentioned is just a drop in the ocean and more and more companies are trying to ride this wave, thereby making the NFT and entering into metaverses an increasingly important tool for business development.

How did it happen?

In order to understand it, first, it is important to understand the history and future of the internet.

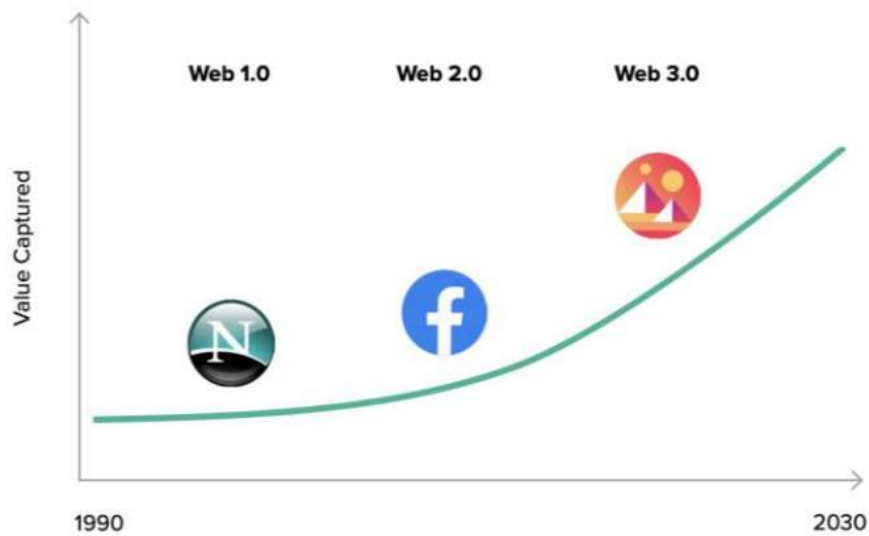
When the information economy just started to develop, in the Web 1.0, it was all about the creation of the infrastructure, making a one-way flow. In the We 2.0 the two-way information flow was created: it was a time of social networks, flourishing different types of content sharing, possibilities of online trading and ecommerce. In the new Web 3.0 the new kind of economy raised, so called decentralized one, which opened a completely new world, where users can get a power in the virtual world. People can live a full life in a meta world, where they will have everything and even more (Mersch, M. & Muirhead, R., 2019).

In The Metaverse report made by Grayscale research in 2021, fundamental changes happened during the transformation from Web 1.0 to Web 3.0 were analyzed.

In the beginning, the Netscape brand was playing a role of connector between users and the Web, in Web 2.0 Facebook was facilitating interactions between users through the online community, in Web 3.0, in the world of content creators, users rule their worlds in new virtual reality platforms, such as Decentraland (Grider & Maximo, 2021).

¹⁷ *High Digital Fashion Drops into Fortnite with Balenciaga*. Epic Games' Fortnite. (2022). From <https://www.epicgames.com/fortnite/en-US/news/high-digital-fashion-drops-into-fortnite-with-balenciaga>.

Figure 4. The evolution of the Web



Source: Grider & Maximo, 2021

Figure 5. Key features changing from the Web 1.0 to Web 3.0





















	Web 1.0	Web 2.0	Web 3.0
Interact	Reading	Reading-Writing	Reading-Writing-Owning
Medium	Static Text	Interactive Content	Virtual Economies
Organization	Companies	Platforms	Networks
Infrastructure	Personal Computers	Cloud and Mobile	Block Chain Cloud
Control	Decentralized	Centralized	Decentralized

Source: Grider & Maximo, 2021

From the period, when companies like Instagram, Facebook, YouTube and others were using users' data in order to develop their platform and monetize themselves we are entering in the era, when users take a leading role and gain opportunities to earn money in the web (İLDAŞ, G, 2022). This will significantly affect the way companies are doing business now.

According to Companies Market Capitalization 2022 report this change will influence different spheres of life such as production, finance, logistics, distribution, marketing, public relations and digital world.

Figure 6. Global ranking, largest companies by market capitalization

Rank	Name	Market Cap	Price	Today	Price (30 days)	Country
1	 Apple AAPL	\$2.668 T	\$163.17	-1.84%		USA
2	 Saudi Aramco 2222.SR	\$2.359 T	\$11.81	2.90%		S. Arabia
3	 Microsoft MSFT	\$2.204 T	\$289.86	-2.05%		USA
4	 Alphabet (Google) GOOG	\$1.751 T	\$2,642	-1.63%		USA
5	 Amazon AMZN	\$1.482 T	\$2,913	-1.53%		USA
6	 Tesla TSLA	\$908.28 B	\$838.29	-0.12%		USA
7	 Berkshire Hathaway BRK-A	\$711.45 B	\$487,440	-0.77%		USA
8	 Meta (Facebook) FB	\$571.97 B	\$200.06	-1.43%		USA
9	 NVIDIA NVDA	\$571.56 B	\$229.36	-3.28%		USA
10	 TSMC TSM	\$544.82 B	\$105.06	-3.43%		Taiwan

Source: Companies Market Capitalization, 2022

So why NFTs are gaining the importance?

1. Blockchain, the technology on which NFTs are based, is going to take over the world, as it is becoming more and more prevalent;
2. World's most successful brands are launching more and more NFT projects;
3. The NFT concept now is connected to humans' subconscious need to belong to the community and to self-expressions through possessions.

This technology can be a great example of the phenomenon when people buy something they do not need (Schiffman, L.G. & Kanuk, L.L., 2004). Just as well as they buy branded things, value of which is 10 times more than of the same unknown versions. People pay 4000 euros for a Gucci bag instead of less known similar version, made from the same materials, with the cost of 400 euros. But why?

The demand is driven by many different factors like brand, its perception, the status it gives to people. And this demand affects the way others make their decisions. The higher it is – the more value it creates for a particular item. And this concept is actually a human centric.

There is a believe that having a Gucci bag communicates something about the person, who owns it, about its value and the place in society. This explains what is happening with NFTs today.

The actual value of these tokens has nothing to do with quality, possibilities and actual usefulness. It is much more about the status of the owner. And the more commonly used it becomes, the more people purchase it, hear about it – the more they need it.

NFTs released by premium brands now are at the top and their value is only growing. Metaverse plays an important role here, as it opens the gateway for NFT luxury brands to reach \$56 billion by 2030¹⁸.

NFTs market capitalization is growing in geometric progression and just speeds up (KOGAN, 2021).

Figure 7. NFTs market capitalization, November 2021



Source: NFTGO

Now we are living in the period of boom of the virtual world and the growth will happen faster and faster. More and more people are enjoying the possibilities of creating their digital reality,

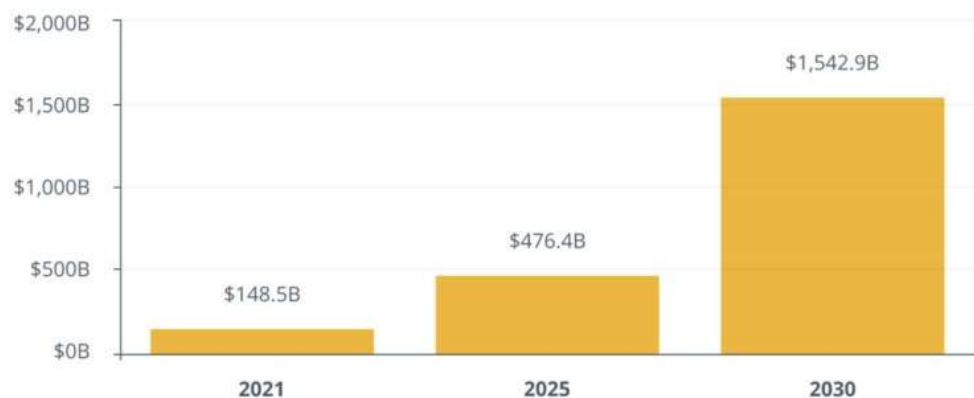
¹⁸ *Luxury NFTs could become a \$56 billion market by 2030, Morgan Stanley says.* Markets Insider. (2022). From <https://markets.businessinsider.com/news/currencies/luxury-nfts-metaverse-56-billion-market-revenue-2030-morgan-stanley-2021-11>.

where they can live another life, using personalized avatars, digital items and endless opportunities. NFTs create additional value as they make it even more real, giving users an ownership right. Now there is a period of growth and development and there is a still long way to go.

Another important moment is that usage of metaverse can help brands to find new audience. Entering in this new world will give them opportunity to attract completely new age group, what is in the long term is vital for the companies. It helps to improve brand image and increase attractiveness.

According to PwC the metaverse market is entering in the phase of the fast growth and will reach \$1.5 trillion by 2030 (Dalton & Gillham, 2022).

Figure 8. Metaverse market size



Source: PwC

Many experts describe this shift as similar to the one, which happened in 2007, when there was a boom of social medias (Knauff, J., 2022). However, in the case of Web 3.0, the shift is happening much faster and intense.

According to Lindsey McInerney¹⁹, former Global Head of Technology & Innovation at Anheuser-Busch InBev: “The similarities between where social media was 17+ years ago and where we are now with the emerging metaverse is wild”.

¹⁹"Lindsey McInerney on LinkedIn: How Marketers Plan to Conquer the Metaverse", 2022. From <https://www.linkedin.com/feed/update/urn:li:activity:6836731787553730560/>.

Even being in the early stage of development, metaverses already becoming everyday parts of the lives of people.

This new reality brings indescribable number of opportunities for brands and companies, it opens new doors to the new markets, which before seemed impossible. Finding a right way of operating can bring great cash flows and be a new beginning of brand-consumer relationships (Buyer, 2021).

But the further it goes, the more competition there will be as very soon the rules of the game, where brands are fighting for the loyalty of the buyers, will change completely, opening new, endless horizons (Brown, D., 2021).

1.3 Implications: financial, marketing and business

There are different ways to use metaverse and NFTs for business development. Here are few different examples, which have two different scopes.

Dolce & Gabbana created the NFT Alta Gioielleria collection²⁰ and sold it for about 5.6 million and a half dollars. In this case tokens worked as a monetization tool and metaverse was the place to extend sales opportunities and explore new profit possibilities.

On the other hand, Clinique²¹ has chosen another path and decided to update its loyalty program and instead of selling NFTs gave costumers, who wanted to participate in the rewards program, the chance to win them, completing some tasks. Winners could receive a possibility to get free Clinique's products for the next 10 years and a unique token molecule that changes colors.

In the Dolce & Gabbana case the final aim was to increase profits and get the buzz in the media, whereas Clinique decided to foster loyalty and engagement of its consumers.

So, this tool can be used for achievement of different goals and gives a field for imagination and creativity. It can work in the long term, as in the example of Clinique, as well as in the short term – Dolce & Gabbana.

²⁰*Collezione Genesi NFT di Dolce&Gabbana.* Aviontourism.com. (2022). From <https://www.aviontourism.com/it/luxury/lifestyle/shopping/la-collezione-genesi-nft-di-dolce-gabbana-42409>.

²¹*Clinique: NFT.* (2022). From <https://www.clinique.com/nft>.

There are others companies that have chosen to use NFTs in the way of fostering loyalty and engagement. Hugo Boss²² created a TikTok challenge, where people could win exclusive tokens and its physical versions. More than 3 million people participated in the challenge.

According to Maghan Mcdowell²³, contests which give a possibility of winning something are really effective way of engaging customers and creating loyalty. The advantage of such campaigns is that people can feel involved without spending their money.

Another effective strategy to use NFTs is to create a double drop when some particular collection is realized. Jimmy Choo²⁴ created sneakers in the form of tokens and the sales were presented as multiple mystery boxes, which contained a randomly assigned card with different levels of rarity as well as one of the models from the physical collaborative collection.

But what actually now is getting more and more interesting for meta users is gaming industry. Brands release merch for already existing games or create its own.

In the anniversary of the founder's 200 birthday Louis Vuitton released Louis: The Game²⁵. Players need to search collectible NFT candles in the virtual reality. Each of them tells the story of Louis's family. 30 NFTs are hidden in the game, 10 of which are made by Beeple, famous artist, which NFT was sold 69.3 million. In the first week half of millions of users tried the game.

One of the key factors of a good marketing strategy is to offer various interesting experiences to the customers which is giving something more than company's products and services. It is very important to create relevant communities and to improve the relations between the brand and the audience. It has a significant effect on consumer loyalty and increase customer lifetime value.

With NFTs this aim can be achieved. It contributes to the goal of conversion generation and sales boosts.

So which opportunities use of NFTs provides? How brands can exploit its possibilities?

Creation of unique brand experiences: Using NFTs it is possible to create a brand storytelling in a new engaging way. It is possible to help customers to change the way they get in

²² BOSS x Russell Athletic NFT. HUGO BOSS. (2022). From <https://www.hugoboss.com/boss-russell-athletic-nft/>.

²³ Nast, C. (2022). *Clinique's first NFT ties to loyalty and products as uses expand*. Vogue Business. From <https://www.voguebusiness.com/technology/cliniques-first-nft-ties-to-loyalty-and-products-as-uses-expand>

²⁴ Jimmy Choo: NFT. (2022). From https://row.jimmychoo.com/it_IT/eric-haze-poggy-nft.html.

²⁵ Nast, C. (2022). *Louis Vuitton to release new NFTs*. Vogue Business. From <https://www.voguebusiness.com/technology/louis-vuitton-to-release-new-nfts>.

touch with the brand. Using different representations, collaborating with artists and content creators the new way of promotion can appear. Through NFTs unique forms of merchandise, collectibles and experiences can be created. It can increase visibility, make the brand more memorable and interesting. Previous examples of Louis Vuitton game can be a perfect example of the NFT strategy adoption.

Fostering brand awareness and loyalty: NFTs give a chance to enter easily into Web 3.0, which is becoming essential nowadays. Exclusive features which this tool provides can help brands to achieve a new level of personalization and utility, increase features of gamification, what in turn can generate awareness, loyalty and advocacy.

Just in the beginning of the NFT craze media was full of headlines about such companies as Taco Bell, Coca-Cola and others, who were the first to enter in this market. It generated a lot of buzz, engaged existing consumers and attracted new ones.

Brands can release also their iconic products, which were forgotten, but which one day were on the top. Making them, brands can use their history in order to gain profits and make people more engaged. Moreover, such releases, which value is not only physical, but also a historical, attracts more attention from collectors. Like as many people search for vintage Chanel bags, which are not in stock anymore, what makes them unique, NFTs of some historic items have the same value for digital collections.

Community building and increasing followers' interactions: Creating NFTs is a perfect tool to generate the buzz. Using the user-generated content, interacting with the community and introducing different types of rewards in crowdfunding campaigns and contests can improve the way brand communicates with its community. People love when they can interact with the company they are following, so using different platforms it is possible to build dialogues and NFTs is a perfect topic to talk about. Furthermore, NFTs sells are made without intermediaries, what creates a tighter interaction between the buyer and the creator. This way brands can see what people think and people, in turn, know that they are heard and that their opinion matters.

Moreover, NFTs can bring brand advocates. If to look around the web, in twitter for example, people use their NFTs as their profile pictures, they connect according to their interests, create real communities. This way they also promote even more the project, becoming loud brand advocates.

Create a brand image and show its position: Brand should represent some value. Using NFTs it is easier to demonstrate the company's stance to different social causes. They can create

digital auctions, money from which will go to special funds, or they can make special drops, which will represent their attitude to the particular event, and people buying these tokens will feel themselves as a part of particular movement.

Open a new revenue stream: Using NFTs brands can expand their product offering, creating the opportunity for a new cash flow. Costs that are required for the production of the digital goods are relatively low, the quantity can be high and there are no additional expenses on manufacturing and delivery.

Brands are free to choose in which way to sell their products. Maybe they want to sell thousands of pieces for a low price or just one unique item for really high price? Or they can implement both options. Opportunities, which this way of selling offers are endless.

Moreover, each time tokens are resold, the creator gets a part of margin, so, as items, people use in metaverse, always go through buying/selling operations, it becomes a good way to have a profit in a long term.

NFTs as authentication tool: Launching limited products, brands can use NFTs to authenticate them. This tool can help to control counterfeit items, giving this way the sense of exclusivity. Moreover, the whole life time of the product can be tracked, using the blockchain technology. As an example, Alfa Romeo launched a car with NFT inside its system. It means that all the selling operations made, incidents happened, controls passed etc. would be recorded and cannot be hided. This gets a sense of trust to people, buying a car.

Digital marketing strategies the use of NFTs can provide

With the growth of the use of tokens, new opportunities for digital marketing strategies appear. Marketers could use a lot of different tools to promote NFTs and the brand name (Stanchieri, 2021).

NFT listings: Creating a unique token and making it available is the first step in the digital marketing strategy. Announcing the launch of the new tokens usually creates an immediate buzz and demand. People know that these products are unique and that there can be the only one opportunity to purchase them. Using popular marketplaces is the best way to promote the brand and to sell NFTs. It increases the value and the credibility.

Influencer marketing: People believe people they used to follow in the web. They have more trust in influencers rather than in simple advertising they see every day. Most of the people

interested in NFTs follow bloggers to know about new trends and launches. Using influencer marketing, new drops can get more attention from the audience. This tool was already known, but it grows even faster with introduction of new platforms and it plays an important role in promoting a product or brand.

Paid advertisements: Well-known paid advertising was always and keep being one of the most relevant and important tool in digital marketing. It can bring target audience faster and more efficiently. It provides a broader reach and active online presence. All the tools are working well here along with social media management and search engine optimization.

Content Marketing: The key of the successful marketing campaign is always a content. It should be impactful and memorable. Comparing to other types of products NFTs' marketing content is slightly different. Here brands usually adopt various blog posts, videos, infographics and everything what can be posted in the relevant sources.

Twitter marketing: Social media is one of the most important and powerful tools that helps brand to stay in touch with its community. The greatest number of its users are in the age between 18 and 29, most of which are involved in the NFT trading and collecting. So, majority of the brand's target audience can be reached through social media platforms.

One of the most used platforms for the NFT community today is Twitter. This is the place, where all the trending projects are being discussed. As a result, connecting with the right audience there is the best strategy to increase the amount of people involved.

Also, nowadays Twitter introduced the NFT support and it can be a great facilitator in using this tool.

Email Marketing: As brands already have its target audience, they can reach them to inform about new projects they are launching through the email advertising. It works not only with already established customers, but also with prospective buyers and audience interested in the topic. Sending announcements and another information to relevant customers builds trust in them and boosts business credibility.

Correct NFT marketing strategies can bring outstanding results for the brands, increasing engagement, loyalty, brand image and bringing home new audience (Bourcart, 2021).

NFTs launches work perfectly with premium brands which products are already in scarcity. According to Gucci²⁶, it's "only a matter of time" before luxury brands release their own NFTs. The possibilities in this world are endless.

Summing all up, there is a great trend in the luxury industry to use digital tools and virtual reality in the companies' business strategy.

As we are now living in the time of the Web 3.0 the world is changing dramatically and in order to be in line with times and to gain new customers, brands have a great opportunity to enter in the meta world to extend their possibilities.

This is absolutely new reality, which represents our offline world, so companies can enjoy flow of new consumers if they implement the switch correctly. Moreover, the costs of creation of digital assets are much lower than the cost of creation of physical ones, however, their sell price can be even higher in the virtual world.

Businesses can engage more people, using this gamification method, which is, as we know, the best way to keep customers being interested. It opens a way for new collaborations, new loyalty programs and marketing strategies, new audience and more buzz in the media, and, as a result higher profits.

Now we are going to deep-dive in these concepts in order to understand what do they actually mean.

²⁶Tong, A. (2022). *Luxury fashion brands poised to join the NFT party*. Vogue Business. From https://www.voguebusiness.com/technology/luxury-fashion-brands-poised-to-join-the-nft-party?itm_source=manual_article_recommendation.

Chapter 2. Deep-dive into the metaverse theory

This chapter is focused on the theoretical part of the whole NFTs concept and its main components. As we are talking about the internet 3.0 there are many different terms that cannot exist separately. It is impossible to talk only about NFTs, because it is based in blockchain, used in different metaverses and marketplaces, sold and purchased using cryptocurrencies. In just one sentence it was important to mention different concepts, which cannot be put apart. The purpose of this chapter is to understand what does this term mean, how it can be used and why it creates that much buzz around itself. As in this work the main topic is the application of NFTs in business strategies, concepts of NFTs and metaverse are primary here.

2.1 What is NFT?

NFT is a non-fungible token, what means that it is a unique digital asset, that cannot be replaced and which gives an ownership right, written in the blockchain (Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. 2022). In other words, it creates a link between a physical object, that exists in real life (but not only an object – it can be even a memory) and its virtual copy and, through specific codes which are encrypted, gives an authentic verified proof of the ownership. Everything can be converted into these tokens, starting from real pieces of art, houses, clothes, ending with songs and memories. NFTs are like any other collective objects, but instead of buying a physical one, people are paying for a digital representation with a proof of ownership of the original copy (Wang et al., 2021).

To understand better the principle of fungibility there is a simple example: a euro bill is fungible — if to trade one for another euro, in the end there will be the same thing. A Mona Lisa painting is non-fungible. If it is traded for another painting, a seller will get something different. This is exactly what the concept of non-fungible tokens means – each of them is completely unique and has different worth.

The fact that the ownership right is recorded in blockchain, the platform, where all the information is stored and cannot be eliminated, changed or hacked makes NFTs very attractive for collectors (Ante, 2021). Sometimes they pay huge amounts of money not for the item itself, but in order to get this particular property right.

Main characteristics of the NFT:

- It is unique digital asset, which cannot be replaced, stolen or loosed;
- Its ownership code, which is stored into the blockchain system creates an unbreakable bond between the virtual item and its owner, so if the picture of the token can be downloaded or copied, the property right always remains the same;
- The owner can sell or donate the token, so the property right will go to another person;
- Whole lifespan of the token – from the moment of its creation until the last purchase – is stored in blockchain, so all the history of the NFT can be tracked.

2.1.1 NFT types and marketplaces

There are different types of NFTs that can be created (Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. 2022):

Collectibles: The initial idea of NFTs was to have digital objects, which could be collected. These items did not have physical representation and existed only in virtual world. However now collectibles can be created also from existing objects, but only for the collections – they cannot be used in any other way in the digital platforms.

Art: Each piece of art that exists in the real world can be transformed into the NFT format. It doesn't mean that the owner of the digital copy is the owner of the physical version, but it gives a unique property right for the copy of the real art object, which exists only in one single version.

The painting of Banksy, after being converted into NFT was publicly burned in order to increase its value as in that moment the only one version of the work existed – tokenized one.

Games: With the growth of the game sector NFTs found a perfect way to monetize themselves even more. Various items, which actually can be used in games can be created: starting from clothes ending with personalities.

Music: NFTs are a great opportunity for artists to find new ways of communication with fans. Through this tool they can organize meetings, sell autographs etc. Moreover, each song, album and even lyrics can be transformed in a digital asset.

There are many other types of NFTs' application, but these are the most widely used and provide the picture of what does it mean.

But how to create NFTs and to find potential audience? Here when marketplaces come on the floor (Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. 2022). There is a plenty of marketplaces, where NFTs can be bought, sold and created. All of them have different criteria, fees and contents. Here are some examples:

- 1) OpenSea – this is the largest platform, with weekly trading volume of \$964,795,740²⁷. This marketplace facilitates in purchasing and creation of all the possible types of NFTs and it supports more than 150 cryptocurrencies as a payment method.
- 2) Rarible – another famous marketplace with trading volume of \$1,263,565²⁸ per week. This platform is primary focused on the digital art, but also hosts game, music and metaverse items.
- 3) Nifty Gateway – platform focused mostly on the ark works and particularly on the premium drops. The weekly trading volume here is \$982,347²⁹.

Marketplaces serve to create NFTs and facilitate all the possible transactions (Nadini et al., 2021). The number of marketplaces is growing every day and each of them gives various of opportunities. However, big brands are more eager to choose marketplaces with bigger market capitalization and larger number of participants.

2.1.2 Use of NFTs

What NFTs can be used for?

There is an uncountable number of things tokens can serve for basically because they leave the place to creativity and allow to implement all the ideas into reality (Khalfallah, 2022). Except well-known collectable purpose there are some interesting ways they can be used:

Advertising purpose: Community is one of the most important things in marketing. Nowadays there are a lot of talks about moving to the cookie-less internet, which will deeply affect current ways advertising work. It will be impossible to track people's actions and to target them

²⁷ NFTGO (2022) From <https://nftgo.io>.

²⁸ Idem

²⁹ Idem

with particular campaigns. However, NFTs give an opportunity for brands to create its own decentralized community with personal data.

Giveaways: Instead of simple rewards this type can be more exclusive and unique. It can be connected to real things and will give a particular right to the customer.

Authentication control: Using NFTs luxury brands can connect their products with blockchain system, where it will be possible to see that the product is real. Moreover, it will be visible who is the owner of the item, what will increase value of it even more.

To promote new launches: In order to advertise and create the buzz around the upcoming launch of the new product of the brand, NFTs can serve in a very good way. Especially, if later the product will become a legend the worth of these first NFTs will skyrocket.

To create a complete virtual luxury market: The future is here and it can be really possible that some of the brands, in order to cut the costs will move to the complete online operations. With NFTs they could sell goods completely digitally.

Gaming industry flourishing: As more and more people are into the gaming, the demand for in-game items is just growing. NFT is the perfect tool to enter to this niche.

However, if all these actions can be made in the system, which is called blockchain, I believe that before going deeper, it is important to say few words about it as well.

2.2 Blockchain

Blockchain technology is what NFTs are based on. It plays an essential role in the existence of tokens, being in some extent its DNA.

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An *asset* can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved (IBM Blockchain, 2022).

So, as it is visible from the definition the system records the information and holds it inside, protecting it from all the possible types of manipulations and interventions. The information,

which stays in blockchain cannot be hacked or changed. When any of participants of the system makes a transaction, it immediately goes to one of the blocks of the chain and remains connected to the profile of the person made it.

The blockchain is a structured database in the form of a chain of blocks, each of which contains a series of information.

Databases are places where information is stored electronically. Users can search and filter this data to find exactly what they are looking for. Databases are widespread everywhere in the real world and of course also in banks, which use them to store information relating to current accounts and transactions.

However, not all databases work the same way: in some, the data can be modified by a central authority, or by anyone with permission to do so. This is not the case with blockchain databases, where information cannot be changed once the block containing it is added to the chain. In fact, every time new information is added, a new block is created instead of modifying an existing one³⁰.

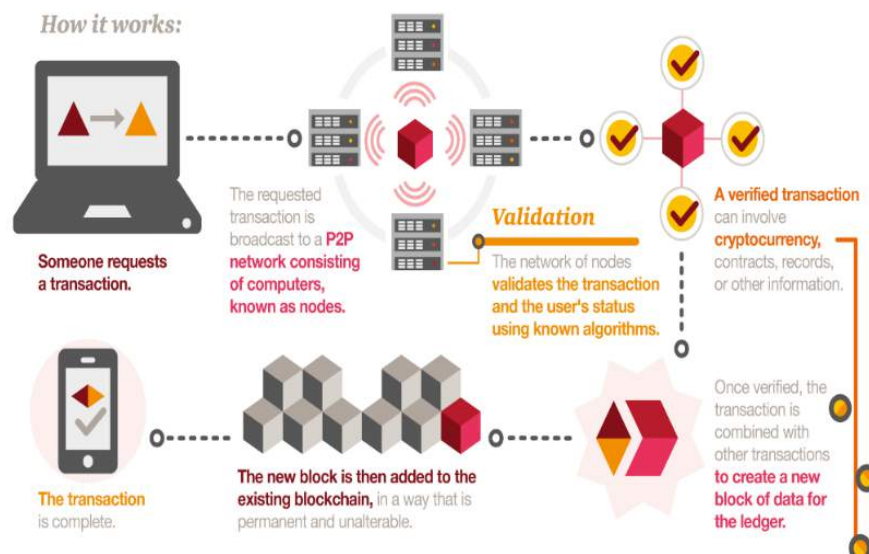
In other words, this can be described as a huge block-structured database, protected through the numbers of symmetric and asymmetric algorithms based on the encrypted and decrypted information and hash encryption (Si et al., 2020).

When transaction takes places in order to be verified it should pass through all the steps of validation, which includes analysis of each block of the system. The control of the whole process is not regulated by any central authority, but it made by nodes, which are distributed all over the world³¹.

³⁰ *The OECD Blockchain Primer*. OECD. (2020). From <https://www.oecd.org/finance/OECD-Blockchain-Primer.pdf>.

³¹ *Making sense of bitcoin, cryptocurrency and blockchain*. PwC. (2022). From <https://www.pwc.com/us/en/industries/financial-services/fintech/bitcoin-blockchain-cryptocurrency.html>.

Figure 9. Process of work of Blockchain technology



Source: PwC

2.2.1 Blockchain platform types

There are different blockchain platforms, where NFTs can be created. Using different marketplaces, different types of blockchain can be chosen as well. The most popular platforms are: Ethereum, Solana and Polygon (Abrol, 2022).

Ethereum was the first blockchain platform, which started the era of NFTs creation and the use of smart contracts. With the expansion of the industry, Polygon and Solana appeared. As competitors, these two platforms give users better fee rates, higher speed and bigger scale, whereas Ethereum provides more features and security.

For the moment, the majority of the most famous marketplaces are based on the Ethereum platform, as well as many successful projects. However, the speed of transaction is relatively lower.

In reality, Polygon is a network based on the Ethereum Blockchain. The difference between them is that the Polygon network processes transactions on this Blockchain in a different way from what Ethereum does directly, in fact they use two different protocols: Polygon, with its cryptocurrency MATIC, uses the POS (proof-of-stake); Ethereum, with its currency ETH, uses PoW (proof-of-work). Simply, Polygon uses a newer and more scalable protocol to manage transactions, which allows, compared to the classic PoW of Bitcoin and Ethereum, faster

transactions and requires less energy to operate. Hence, NFTs created with Polygon are actually more sustainable in terms of energy than those created with Ethereum. However, according to some in terms of security and vulnerability, the PoW remains much more reliable than the PoS (Moleti, 2022).

Unlike Polygon, Solana which is making its way into the world of NFTs is a completely independent Blockchain from Ethereum which also constitutes a more sustainable and economical alternative when used for minting.

When it comes to NFTs minting, it is difficult to say which is the best to use.

If the use of Polygon has low costs because the "gas fees" do not apply – the minting is at no cost, users often encounter different problems. In a fluctuating way, the Polygon network sometimes creates problems making it impossible to freeze and minting NFT. Moreover, transactions for the purchase of MATIC cryptocurrency are often incredibly slow. It happens mostly because of the overload of the network due to the fact that NFT minting on Polygon is having low costs (Moleti, 2022)..

The fact is that at the moment, especially if there is a launch of a large-scale collection, Ethereum which has higher costs, also has greater reliability.

The most sustainable alternative to the Ethereum Blockchain is Solana, which has completely autonomous Blockchain. NFT minting and listing is possible on the SolanaArt platform where transactions take place in the native cryptocurrency of the Blockchain which is SOL.

Solana uses a hybrid protocol called proof-of-history (PoH), which starts with proof-of-stake (POS) and aims to build a more sustainable and scalable alternative to Ethereum. The costs of minting are lower as well (Moleti, 2022).

2.3 Metaverse

The metaverse is a consistent convergence of our offline and online lives, bounded together in the virtual community where we can interact, work, play and communicate. It is still early in its advancement. There's no one virtual world but numerous universes, which are taking shape to empower individuals to develop and expand social communications through an immersive, three-dimensional layer (Moy & Gadgil, 2022).

Now we are entering in the new world of Web 3.0 and it is important to see what are the differences between it and the Web 2.0.

Figure 10. Web 2.0 and Web 3.0 comparison

Web 2.0 versus Web 3.0 approach to the metaverse			
	Web 2.0	Web 3.0	
PLATFORM CHARACTERISTICS	Example virtual worlds	<ul style="list-style-type: none"> • Second Life • Roblox • Fortnite • World of Warcraft 	<ul style="list-style-type: none"> • Decentraland • The Sandbox • Somnium Space • Cryptovoxels
	Organizational structure	<ul style="list-style-type: none"> • Centrally owned • Decisions are based on adding shareholder value 	<ul style="list-style-type: none"> • Community governed, generally through a foundation decentralized autonomous organization (DAO) • Native tokens are issued and enable participation in governance • Decisions are based on user consensus
	Data storage	<ul style="list-style-type: none"> • Centralized 	<ul style="list-style-type: none"> • Decentralized (game assets)
	Platform format	<ul style="list-style-type: none"> • PC/console • Virtual reality (VR)/augmented reality (AR) hardware • Mobile/app 	<ul style="list-style-type: none"> • PC • Virtual reality (VR)/augmented reality (AR) hardware • Mobile/app coming soon
	Payments infrastructure	<ul style="list-style-type: none"> • Traditional payments (e.g., credit/debit card) 	<ul style="list-style-type: none"> • Crypto wallets
USER INTERACTION	Digital assets ownership	<ul style="list-style-type: none"> • Leased within platform where purchased 	<ul style="list-style-type: none"> • Owned through non-fungible tokens (NFT)
	Digital assets portability	<ul style="list-style-type: none"> • Locked within platform 	<ul style="list-style-type: none"> • Transferable
	Content creators	<ul style="list-style-type: none"> • Game studios and/or developers 	<ul style="list-style-type: none"> • Community • Game studios and/or developers
	Activities	<ul style="list-style-type: none"> • Socialization • Multi-player games • Game streaming • Competitive games (e.g., esports) 	<ul style="list-style-type: none"> • Play-to-earn games • Experiences • (Same activities as Web 2.0, see box on left)
COMMERCIALS	Identity	<ul style="list-style-type: none"> • In-platform avatar 	<ul style="list-style-type: none"> • Self-sovereign and interoperable identity • Anonymous private-key-based identities
	Payments	<ul style="list-style-type: none"> • In-platform virtual currency (e.g., Robux for Roblox) 	<ul style="list-style-type: none"> • Cryptocurrencies and tokens
	Content revenues	<ul style="list-style-type: none"> • Platform or app store earns 30% of every game purchased; 70% goes to developer (example model)⁴ 	<ul style="list-style-type: none"> • Peer-to-peer; developers (content creators) directly earn revenue from sales • Users/gamers can earn through play or participation in platform governance • Royalties on secondary trades of NFTs to creators

Source: JP Morgan report

People in the virtual world are represented with their avatars, through which they can communicate and interact. In metaverse to buy or sell items people use cryptocurrency or tokens. It is possible to create, buy or sell anything what just can be imagined.

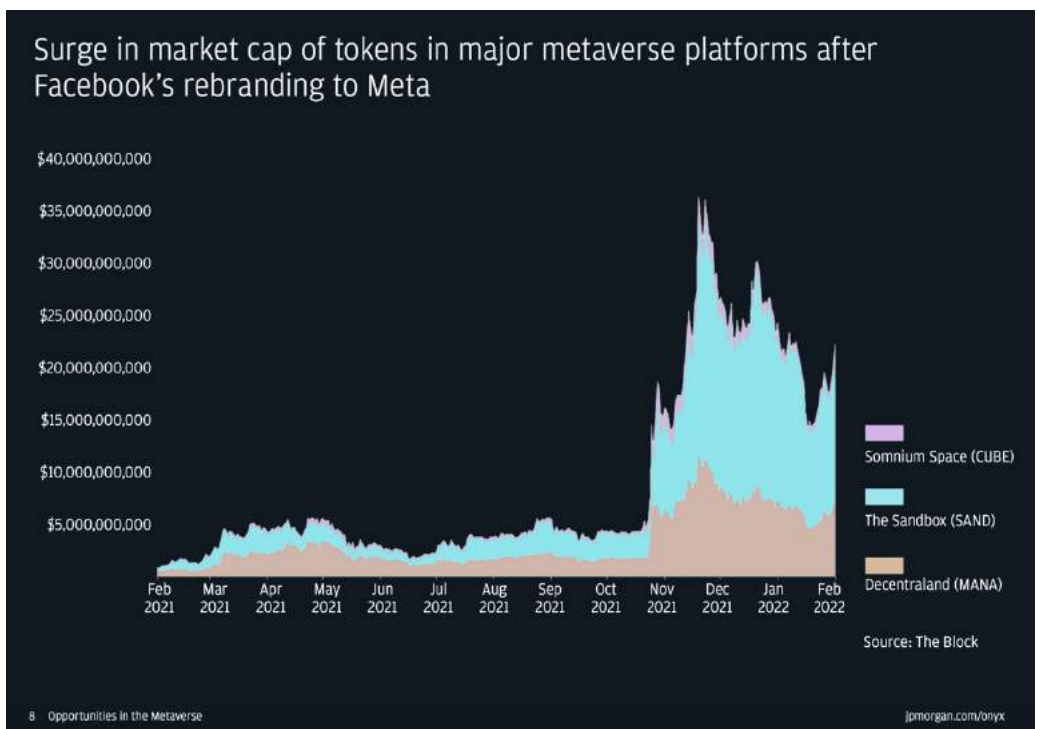
There is still no particular term to define what metaverse is. Many experts explain it as a 3D model of the internet. In other words, metaverse is a place that exists in parallel with physical world.

Now this term is becoming discussed more and more often, brands are declaring their presence there in order to be a part of this new economy. This actually called in a different way, when we

talk about the metaverse economy the term metanomics is used. As well as in the real world in the virtual one you can do all the type of business and buy/sell different kinds of products (Moy & Gadgil, 2022).

Interesting to notice that in the last year there was a skyrocketing growth in the market capitalization of the metaverses, especially when Facebook rebranded itself and manifested the beginning of new Meta era (Moy & Gadgil, 2022).

Figure 10. Metaverse market capitalization surge after Facebook's rebranding



Source: JP Morgan report

Metaverse is the base for utilization of the NFTs, as it gives huge number of possibilities for this tool.

And why it is so important to understand these terms and why they cannot exist separately?

2.4 Metaverse and NFTs as complementary concepts

If NFT and Metaverse appear to be so different, why are they associated? In reality it is important to consider the fact that with the generic term metaverse it is meant a cryptographic universe, based on the blockchain without which it could not be operational. Blockchain which,

coincidentally, is also indispensable for NFTs for the aforementioned certificates of ownership, without which we would have only images or in any case digital files that can be easily replicated (Abbasi, 2022).

In this reality, NFTs are connoted as the necessary certificates for the recognition and attribution of ownership of any asset, an indispensable element for the construction of a metaverse that makes its peculiar feature private property. The metaverse, founded on the blockchain, consists of digital objects accompanied by NFT and organizes them according to its own rules and structures, in order to enhance their characteristics and peculiarities (Irem, 2022).

As it was already mentioned NFT is a great tool for artists and brands to monetise even more their works and products. Metaverses allow people to actually use those items, showcase digital forms of art and property (Binance Blog, 2022). With the usage of tokens, it is possible to actually have a value and the proof of ownership. Moreover, NFTs could become an excellent currency that can be used in meta worlds.

Talking about brands, metaverse, or virtual world, exists in parallel with the physical one, and it gives a great playground for extension of the existing way of doing business. Creating digital representations of the products, which doesn't involve spending huge amounts of money, they can sell it for more or less same prices, gaining more customers and new audience (Fonarov, 2022).

NFT and Metaverse are connected because today each person has the opportunity to create their own 3D avatar and, for example, to proceed with the purchase of garments or accessories (but also portions of virtual territory or access to exclusive communities) through NFT (Morgan Lewis, 2022).

This possible experience translates into two different advantages for the user and for the brand, respectively summarized in the following points:

- the user has the opportunity to buy or try on "in virtual life" a garment or product, which could be out of their financial or other possibilities in real life;
- the company, on the other hand, acquires the opportunity to increase its profits by selling virtual products and clothes to an ever-wider audience.

2.4.1 Ways to leverage profits in the metaverse

There are a lot of different possibilities in the virtual world. Anything can be created there, and the more idea is original the more attention it will cause. Here I would like to show the most common ways of using NFTs in the metaverses.

Virtual markets: The first and really basic example is creating of virtual marketplaces, where users can go and see products, choose them, evaluate and buy. Here also VR technology can be used in order to have a full immersive experience. Good example here is Nike, which with RTFKT studio created its own Nikeland.

Art galleries: Just like in Hermitage or Metropolitan Museum people can walk around watching art masterpieces. In the case of virtual reality, prices are given and it is possible to buy the art work and become a complete owner of this digital copy of the real masterpiece. Moreover, some metaverses, like Cryptovoxels, host real art galleries like San Francisco Museum of Modern Art.

Games: Gaming industry is one of the fastest growing in the metaverse, millions of people are using it and spending hours there. NFTs can be perfectly used for this purpose: some brands are creating tokens of products, that can be used there, some instead are creating its own games. Moreover, these games are giving a possibility to earn as well: people can do various manipulations like selling digital assets, buying others and thanks to blockchain technology an open fair economy can be created. Tokens are not just items you earn and sell, now it is much more – it is about real ownership rights and value.

Real virtual estate: We can hear more and more about stars buying pieces of land in the metaverse. Pretty much as in the real life when people buy a property – it can be bought in virtual reality in the same way. In Decentraland, virtual world, where land can be acquired, using NFTs operations could be done more easily.

Identity: Metaverse allows people to live virtual lives, interacting with each other, using avatars. NFTs can be presented as real people's identity. It can be close to reality or to be imaginary one, but the fact is that it takes social interaction on another level.

Moreover, it is important to mention that each time token is resold on the marketplace to another person the creator gets a part of profit. So, as NFTs are the subjects of multiple transactions, creators can get some percentage of margin each time (Thune, 2022).

2.5 Examples of metaverses

According to report issued by Emergen Research (Emergen Research, 2022) the metaverse market will reach USD 1,607.12 Billion in 2030. There are some most used companies, which have the highest market capitalisation and which we will take a look at:

Decentraland³²: This platform was one of the pioneers in the virtual reality segment. This is the platform, where users can create content, interact with each other and have almost endless possibilities. This is one of most popular spaces for investors, brands, companies and even governments. It hosts Barbadian embassy (CURETON, 2022) and new Samsung mini-city. Decentraland also hosted a music festival with Paris Hilton.

The Sandbox³³: One of the metaverses known for its stability and security. It's a gaming environment, which allows users to create its own games and do many other things similarly to Decentraland. Sandbox has also partnered with over 165 brands to create avatars in the virtual world of famous characters such as Snoop Dog and The Walkin Dead.

The Sandbox metaverse is actually a puzzle made up of many small platforms that, like in a large network, connect and interact with each other. Inside each user will have the possibility to create, exchange, buy or sell digital avatars, in the form of NFT, or to buy, sell or rent a real plot of land (with the possibility, among other things, to generate an income passive).

Roblox³⁴: One of the most popular metaverse platforms, which hosts more than 20 million games. Game developers can monetize their creations fast and earn more then million dollars in just one year after creation.

A great success that soon attracted many brands, such as Gucci, which organized the Gucci Garden Experience (MCDOWELL, 2022) within the platform, an event in which the famous brand

³² Decentraland: <https://decentraland.org>

³³ The Sandbox: <https://www.sandbox.game/en/>

³⁴ Roblox: <https://www.roblox.com>

launched some exclusive NFTs, faithfully reproducing their creations digitally. During the event, a model of bag was sold for about \$ 4,000, a much higher price than the corresponding real object.

Nike also decided to enter the Roblox world by creating its own underworld called Nikeland³⁵, a virtual space dedicated to the world of sport.

Summing all up, it is possible to conclude that NFTs, being based on the blockchain technology, first of all, can be a secure way to make different kinds of operations in the web and moreover can give companies and brands an access to a new virtual market. Usage of NFTs can facilitate the process of trade and give a sense of exclusivity for users.

As it was described, NFTs can exist separately and be traded in different marketplaces as well as be a complementary asset for metaverses, where their utility increases significantly. Brands have a great choice in choosing the way of implementation of this tool – the possibilities are constrained only by creator's imagination.

³⁵ Nileland: <https://www.roblox.com/nikeland>

Chapter 3. Gucci case study and future of NFT

This chapter is dedicated to the Gucci case study, as this brand was one of the pioneers among the luxury companies, entering in the virtual world in the very beginning of the NFTs' craze, and it is continuing its active participation in metaverse, announcing new initiatives. Using its example, it is easier to understand different ways of tokens' application and following outcomes. Moreover, the interview with company's CMO was analyzed. Further in the chapter SWOT-analysis of the NFTs' applications was delivered and critical discussion on the future of tokens was made.

3.1 Gucci case study

Metaverse and NFTs are becoming an integral part of marketing in the fashion industry. From the first quarter of 2021 there are more and more news about brands entering into this new space. Different types of activity which is done in the virtual words surged and there is a great playground for companies to increase revenues.

Gucci³⁶ is an Italian fashion house, based in Florence, which operates in the high fashion and luxury goods sectors. Its products include shoes, accessories, apparel, jewelry, watches, make-up, perfumes, and a collection of home furnishings and decorative accessories.

Gucci was one of the pioneers to explore Web 3.0 opportunities and from March of 2021 it keeps pushing in this direction.

First NFT which was issued by the brand was the first ever virtual sneakers, which were sold in 3D format. It started to explore Roblox metaverse and The Sims simulation game, going further to Pokémon Go and Animal Crossing. Gucci is willing to be perceived as innovative and as an industry leader in this sector, however, as they stated, it is also very unknown sector and very risky. The company even hired a special team, which is working on the development of its digital projects (Bingol, 2022).

Beginning to analyse this case, it is curious to look at the interview of Robert Triefus, Gucci's Executive Vice President and Chief Marketing Officer, published in McKinsey report "The State of Fashion 2022" (RÖLKENS et al., 2022).

Robert Triefus explained that brand's actions in the digital space are not only about marketing, it is much more as they believe that metaverse will become a key for a revenue growth. There can

³⁶ Gucci: <https://www.gucci.com/int/en/>

be various objectives like branding, revenue share, it also can be combined all together, but the experience of Gucci shows that it really brings a great stream of profits (RÖLKENS et al., 2022).

Good example is Roblox, which market capitalisation is huge even though the launch of the platform was not that much time ago. According to Triefus, this shows that the company realized how to monetize virtual experience very fast. The revenue potential is undeniable here as people are ready to pay huge amounts of money for digital items in order to improve their lives in metaverse – the key is to understand right path (RÖLKENS et al., 2022).

Going even further he said that NFTs give “opportunities around authentication, providing an additional sense of authenticity and security to customers. Or around added value that comes with specific products, where there may be a narrative linked to it. Digital collectibles may inspire physical manifestations” (RÖLKENS et al., 2022).

Triefus says that there is a great growth of the gaming world, which will only accelerate. According to him, the popularity of virtual reality now is high because it gives a lot of possibilities for self-expression, which is much higher than in physical reality.

Currently, in terms of collectibles, Gucci wants to create value by allowing assets to be used in multiple universes and metaverse (RÖLKENS et al., 2022).

In June 2021 Gucci launched its first NFT project, inspired by its Gucci Aria (Li, 2022). It used Christie’s platform, becoming first luxury brand using it (MCDOWELL, 2022).

The collection was called Gucci Aria NFT and it was a 4-minute-long film with an animation from Gucci Aria, being the latest fashion representation of the brand. Initially, the film was made in honour of the brand’s 100th anniversary, demonstrating its legacy and making it an ideal foundation for the NFT creation (Li, 2022).

NFTs were sold during the auction called “PROOF OF SOVEREIGNTY: A Curated NFT Sale by Lady PheOnix” with the initial price of \$20,000. The final price was \$25,000 and all the revenues were donated to charity fund UNICEF USA aimed to provide help in access to vaccines against COVID-19.

Next brand’s experience in metaverse was the creation of Gucci Garden³⁷ in May of 2021, based on Roblox. This is a virtual fashion installation, which was available for users for two weeks.

³⁷ Gucci Garden: <https://guccigarden.gucci.com/#/en/>

It was considered to be an addition to the real installation, which took place in Florence and was called the Gucci Garden Archetypes (BARRY, 2022).

Entering into the virtual Gucci Garden, guests were becoming neutral mannequins without the gender and age, which was the symbol of the beginning of the journey “through life as a blank canvas”. Going through different rooms, participants were absorbing elements of an exhibition (Webster, 2021).

“With every person experiencing the rooms in a different order and retaining different fragments of the spaces, they will emerge at the end of their journey as one-of-a-kind creations, reflecting the idea of individuals as one among many, yet wholly unique.”

Moreover, visitors were also allowed to purchase Gucci’s limited-edition avatar items. For example, a during the exhibition, Gucci bag was sold for \$4,115, appearing to be more expensive than its physical version. As soon as it was announced that all the collectable items would be converted into limited items the interest in the event increased significantly.

In total, \$3,575,000 was the revenue from the initial sales of collectible items (“Gucci Garden”, 2022).

Second NFT drop, made by the brand in February 2022, was in collaboration with vinyl toymaker, which is famous for creation of animated celebrities and digital collectables, Superplastic and was called SUPERGUCCI³⁸.

³⁸ SUPERGUCCI: <https://vault.gucci.com/en-US/story/supergucci>

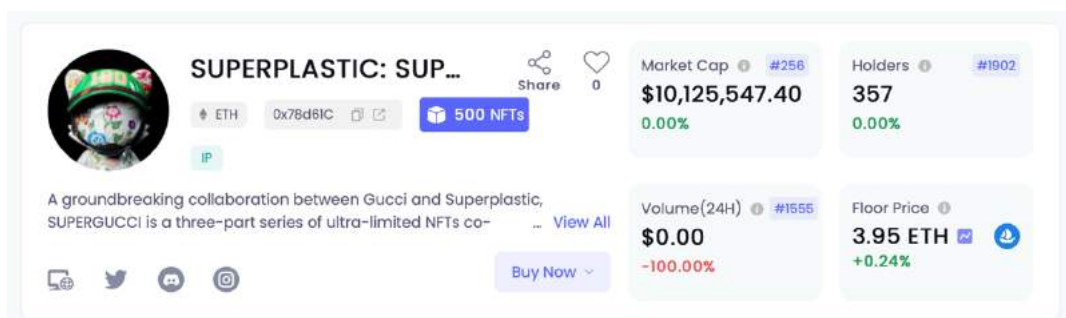
Figure 11. SUPERGUCCI NFT example



Source: Gucci

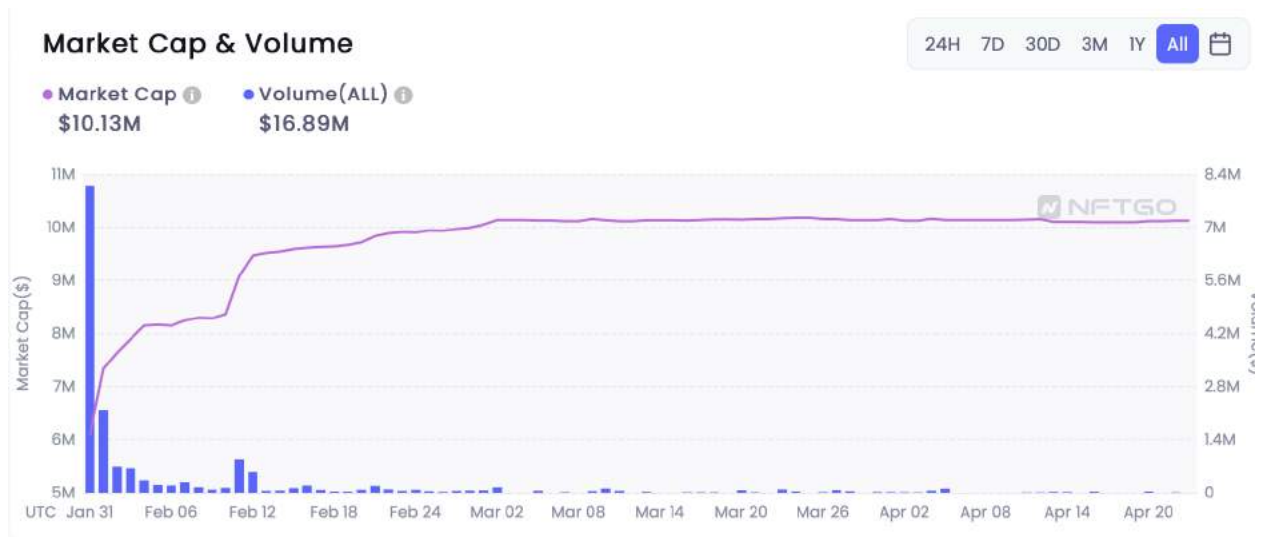
This is a three-part series of super limited NFT collection. Each series included 10 exclusive NFTs, each of which representing traditional Gucci patterns and coming with unique tall white ceramic sculpture SUPERGUCCI SuperJanky, handmade by Gucci’s ceramicists (SILBERT, 2022).

Figure 12. SUPERPLASTIC statistics



Source: NFTGO

Figure 13. SUPERPLASTIC market capitalization and volume



Source: NFTGO

Figure 14. SUPERPLASTIC price chart



Source: NFTGO

Moreover, in February Gucci has purchased a plot of land in the Sandbox metaverse, where it expanded their digital presence, creating an experimental concept store The Gucci Vault³⁹. Brand's creative director wanted to create their own virtual world, where all the items and collectibles, created by the company could be available (Ko, 2022).

Using Gucci Vault users can experience in the virtual environment past, present and future of the brand, and see that all these three dimensions actually co-exist. The launch of the platform was

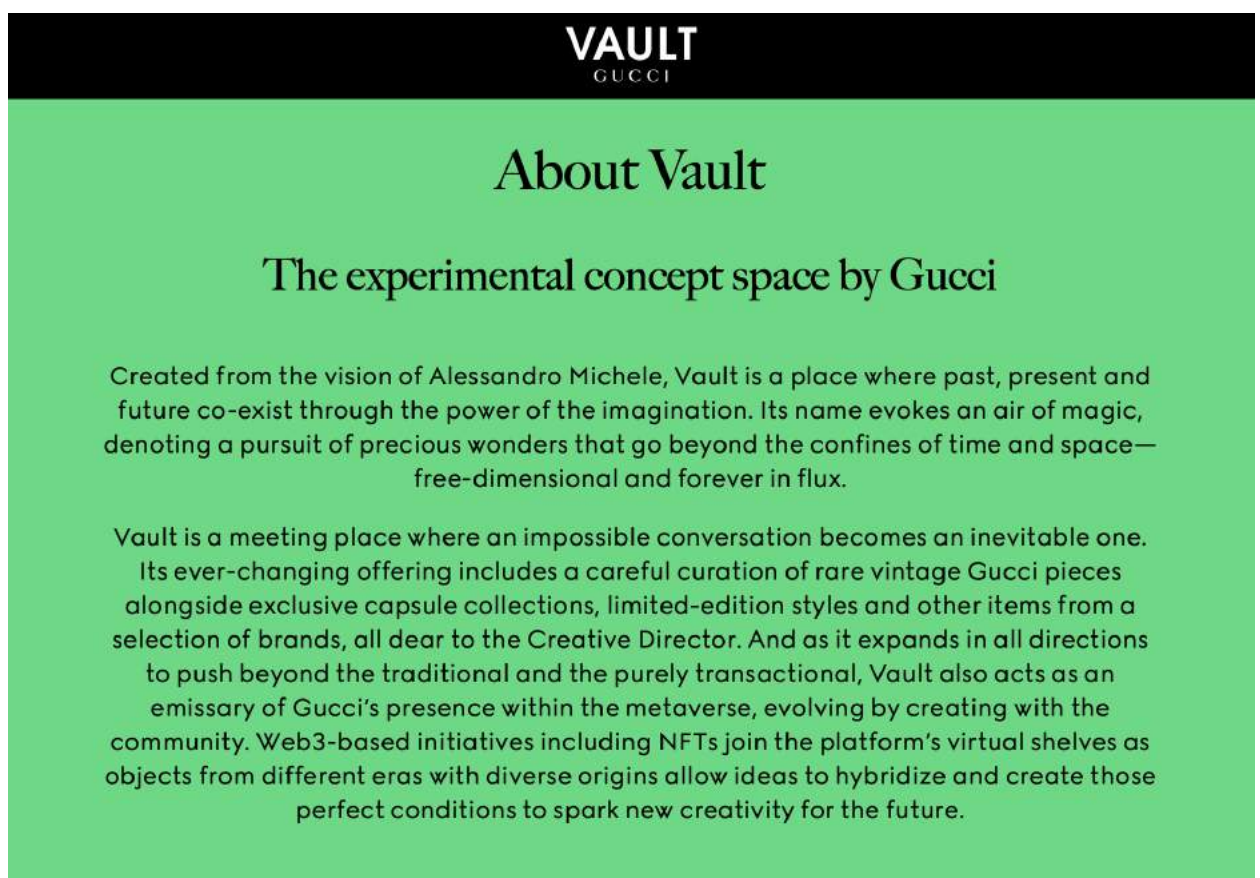
³⁹ The Gucci Vault: <https://vault.gucci.com>

made in the same time with the 6th drop of vintage hand-picked with their own unique packing, which were available on there and were sold out really fast (PAULY, 2022).

Other objects listed in the platform are part of the Discovery edition, marked as vintage, coming from 1960s and 1980s, including bags, handkerchiefs, clothing items and even some homewares. SUPERGUCCI collection is also presented in Gucci Vault.

“Vault is many different things at once,” the fashion house states. “A time machine, an archive, a library, a laboratory, and a meeting place.”⁴⁰

Figure 15. Gucci Vault



Source: Gucci Vault

The latest initiative made by Gucci, using its Vault meta space, was the collaboration with 10KTF, a virtual shop born a few months ago with the aim of creating existing NFT derivatives,

⁴⁰ Idem

which is enjoying growing success (Faurote, 2022). Such prestigious collaboration should further increase its visibility in the web.

Its Tokyo-inspired floating island design with the old shop run by the mysterious digital craftsman Wagmi-san fits quite well with Gucci's whimsical vintage style. The name of new project is “10KTF Gucci Grail”⁴¹.

Figure 16. Gucci Vault: Gucci Grail initiative



Source: Gucci Vault

The idea is that there is a crystal ball left in place, representing a pass, which allowed people to participate in this initiative reserved for 5,000 lucky ones elected among the most loyal members of the Discord communities of Gucci Vault or 10KTF, as long as they have a PFP (Profile for Picture) or an NFT avatar, which represents its owner in the virtual world. To achieve this exclusive Gucci 'Grail', it was also necessary to hold this PFP within the dozen existing 10KTF compatible NFT projects, such as Bored Ape, World of Women or Cool Cats.

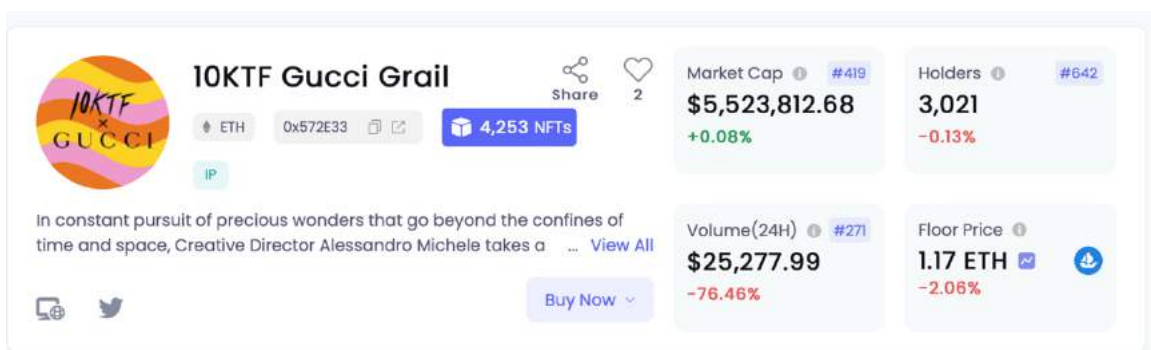
During the partnership between Wagmi-san and Alessandro Michele, Wagmi-san dressed PFPs from 11 selected NFT collections including from popular series like Bored Ape, World of Women and Cool Cats. Also, during the collaboration, two Gucci looks were created, which currently are available in several different colours.

⁴¹ Gucci Grail: <https://vault.gucci.com/en-US/story/gucci-grail>

Once the precious pass was obtained, it was possible to personalize an NFT, choosing between two looks designed by Alessandro Michele, inspired by his recent collections for Gucci, “Aria” and “Love Parade”.

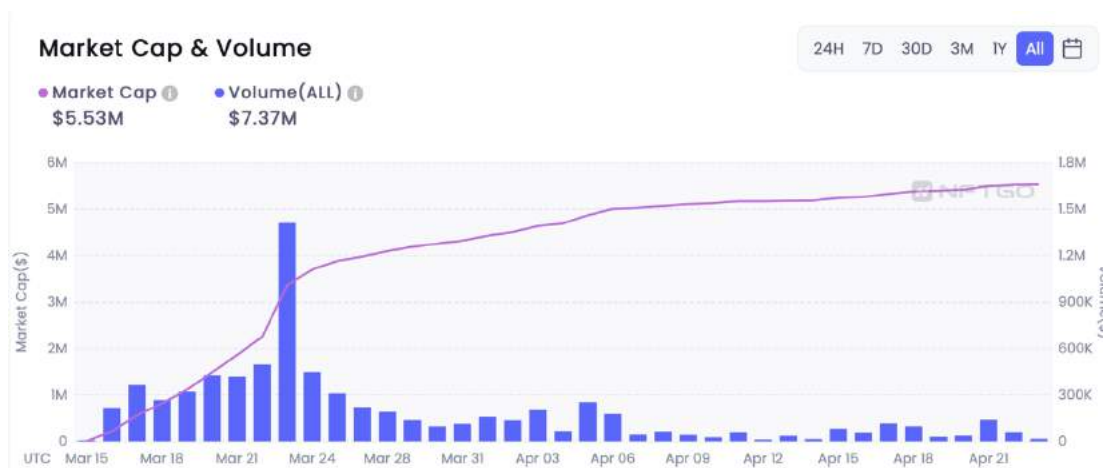
A way for the Italian company to gain greater loyalty in its community, in particular that of younger customers who are passionate about the digital and virtual world, continuing to experiment in this universe and to consolidate its image in a coherent creative environment developed at 360 degrees.

Figure 17. Gucci Grail statistics



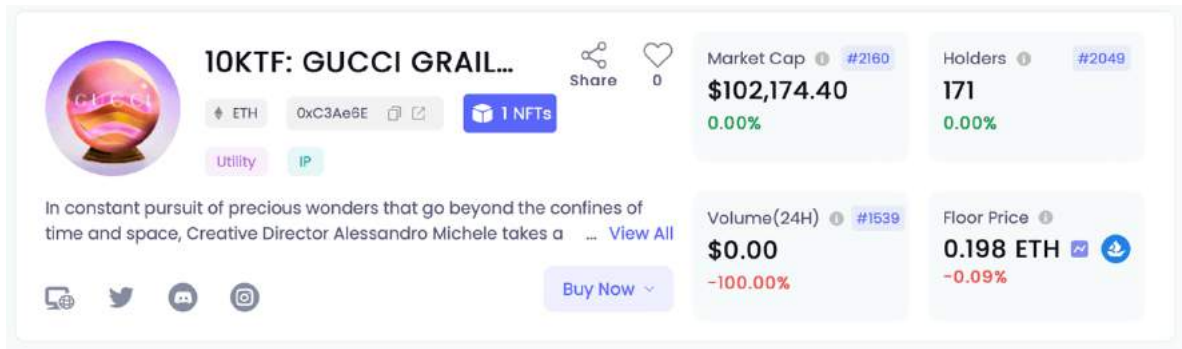
Source: NFTGO

Figure 18. Gucci Grail market capitalization and volume



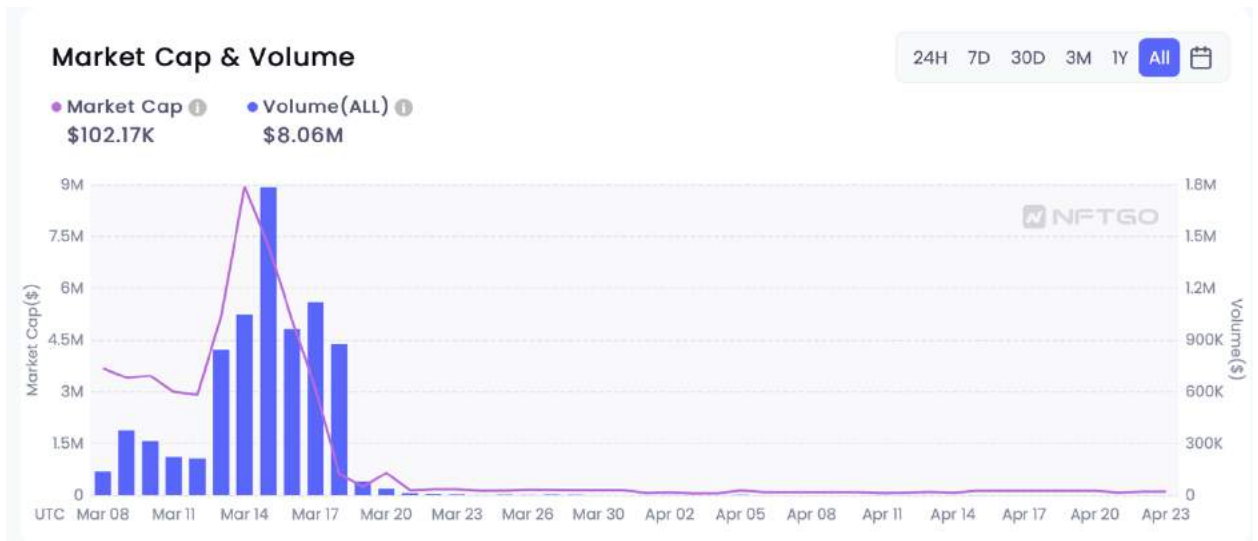
Source: NFTGO

Figure 19. Gucci Grail statistics



Source: NFTGO

Figure 20. Gucci Grail market capitalization and volume



Source: NFTGO

Figure 21. Gucci Grail price chart



Source: NFTGO

According to the brand's CEO Marco Bizzarri exploring the new virtual horizons is the 'Dream big' team, formed over a year and a half ago to explore new areas, as happened with Gucci's gaming strategy with platforms such as Roblox, Zepeto, Animal Crossing and Genies.

“Anyone who claims that web 3.0 is a pretext to sell digital sneakers does not understand and ignores its potential There are sceptics who wonder if the experience of the metaverse can be reconciled with the values of luxury, who question the meaning of the metaverse itself. Digital collectibles are a drop in an ocean whose boundaries have not yet been defined”.⁴²

Gucci was one of the first movers in the sector of fashion in metaverse and it keeps creating various different projects to grow its presence. As it is possible to see, it is not only creating NFTs, but also providing users with special spaces, where buyers can utilize items and have other interesting experiences. Moreover, Gucci is constantly entering in collaborations with well-known metaverse artists in order to gain wider audience and be more visible. The brand is succeeding in creating its own community as it is becoming recognizable as a digital player.

Analysing the KERING annual report with performance results of the group it is not possible to see a particular part about revenues from the activity in the virtual space or from selling digital goods as for now it is not recognisable, however, Gucci's revenue in 2021 has grown up 31%. As

⁴² Bizzarri: “Con Gucci investiamo nel metaverso”. Pambianconews notizie e aggiornamenti moda, lusso e made in Italy. (2022). From <https://www.pambianconews.com/2022/03/29/bizzarri-gucci-accelera-investimenti-nel-metaverso-342849/>.

reported, recurring operating income in 2021 was 42% higher than in 2020. It was underlined that the brand in this period was implementing clienteling initiatives⁴³.

Figure 22. Gucci's operating performance

Operating performance

Revenue <i>(in € millions)</i>	2021	2020	Reported change	Comparable change ⁽¹⁾	2019
Total Luxury Houses	17,019.4	12,676.6	+34.3%	+34.9%	15,382.6
Gucci	9,730.9	7,440.6	+30.8%	+31.2%	9,628.4
Yves Saint Laurent	2,521.0	1,744.4	+44.5%	+45.6%	2,049.1
Bottega Veneta	1,502.8	1,210.3	+24.2%	+25.1%	1,167.6
Other Houses	3,264.7	2,281.3	+43.1%	+43.8%	2,537.5
Corporate and other	625.8	423.6	+47.7%	+43.0%	500.9
KERING	17,645.2	13,100.2	+34.7%	+35.2%	15,883.5

(1) Change on a comparable scope and exchange rate basis.

Recurring operating income <i>(in millions of euros)</i>	2021	2020	Change	2019
Total Luxury Houses	5,175.3	3,367.1	+53.7%	5,042.0
Gucci	3,714.6	2,614.5	+42.1%	3,946.9
Yves Saint Laurent	714.6	400.0	+78.7%	562.2
Bottega Veneta	286.5	172.0	+66.6%	215.2
Other Houses	459.6	180.6	+154.5%	317.7
Corporate and other	(158.1)	(231.9)	+31.8%	(263.7)
KERING	5,017.2	3,135.2	+60.0%	4,778.3

Source: KERING group report

Gucci went even further and in May of 2022 has announced that company would start accepting cryptocurrency payments in their retail stores. In order to make a payment customers will use a link, received via mail, which will contain a QR code that will allow them to make a payment from crypto wallet.

Gucci president and CEO Marco Bizzarri stated that “Gucci is always looking to embrace new technologies when they can provide an enhanced experience for our customers.”⁴⁴

3.2 SWOT-analysis

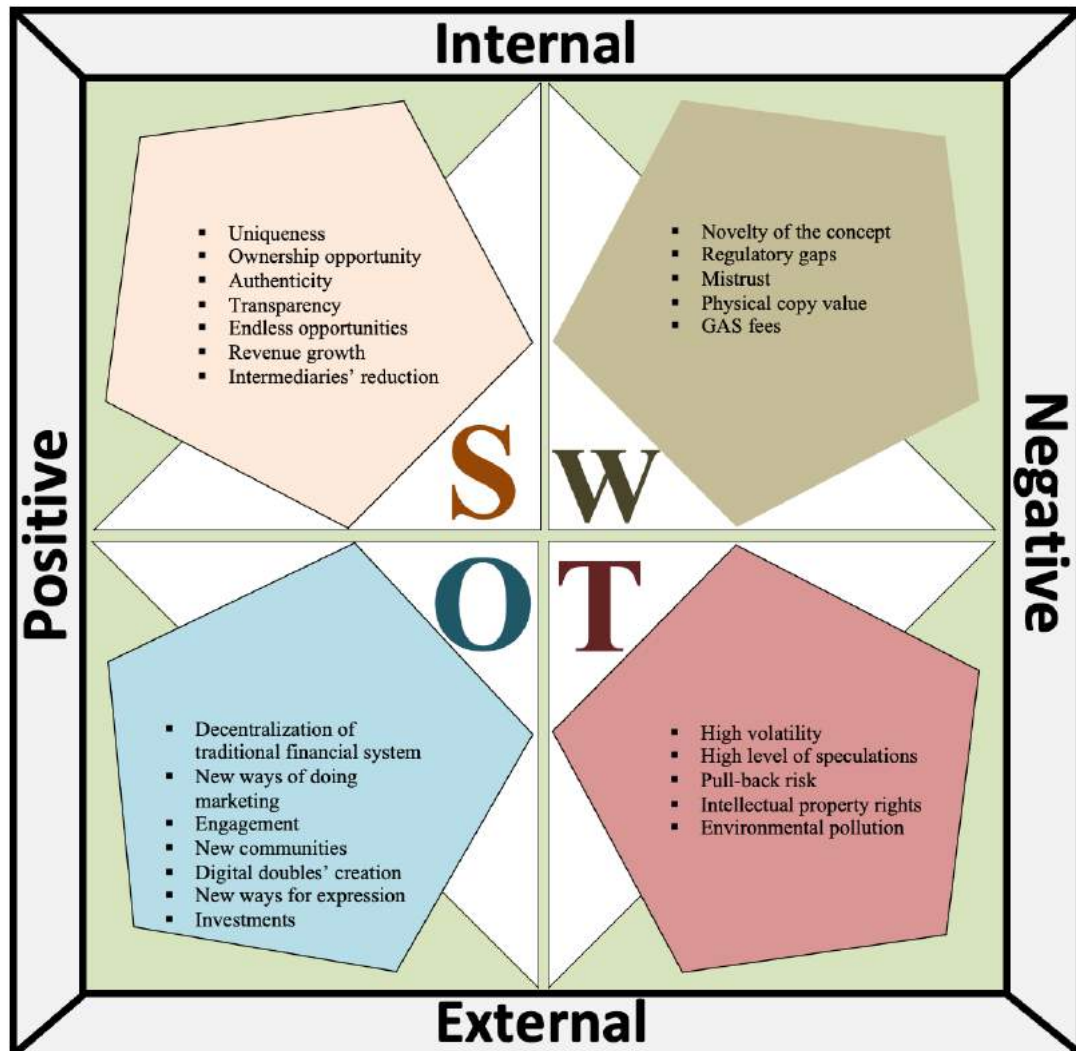
Considering all the aspects of the research made, in order to have an overall overview of the subject, the SWOT-analysis is needed. As every new business tool, NFTs' use has different aspects

⁴³ PRESS RELEASE: 2021 annual results. Kering.com. (2022). From https://www.kering.com/assets/front/documents/Kering_Press%20release_2021%20FY%20Results_17022022.pdf.

⁴⁴ Now, Gucci Will Accept Payments In Cryptocurrency. NDTV.com. (2022). From <https://www.ndtv.com/business/now-gucci-will-accept-payments-in-cryptocurrency-2951543>.

and even though it has many advantages there are several drawbacks, which are important to consider in order to better understand the opportunities and possible weaknesses.

Figure 23. SWOT-analysis



Strengths:

- **Uniqueness:** Each NFT issued exists in the only one version and there will never be another token like the other one. It gives brands a great opportunity to provide their clients with a sense of exclusivity, creating tokens, which will only grow in value in future as they exist in the only single copy.
- **Ownership opportunity:** The technology on which NFTs are based, Blockchain, provides possibility to have registered ownership rights for a particular item. Purchasing a unique asset, buyers' data is recorded in the web and it cannot be lost, stolen or replaced – blockchain guarantees security and transparence. Moreover, using NFTs, brands can provide

customers with digital ownership rights for physical assets, creating also a possibility of tracking the history of usage of them, what is also valuable for future purchase operations.

- **Authenticity:** Creating a bond between the physical asset and a token, brands can provide clients with an information about authenticity. Using this technology, the likelihood of buying a counterfeit product can be significantly reduced.

- **Transparency:** Blockchain is considered to be transparent and reliable, it facilitates operations which are made using cryptocurrencies. Being based on this platform, all the manipulations with NFTs are recorded and visible to the public.

- **Endless opportunities:** Being a digital tool, closely connected to metaverses and following the rules of Web 3.0, NFTs provide endless opportunities for brands to expand their marketing and engagement strategies. Existing in virtual space, every possible thing, which can only come to the mind, can be created and implemented. Usage of this tool opens to brands new horizons in all the senses: new possibilities in the way they are doing business, new markets and communities, new overall brand perception.

- **Revenue growth:** The transaction amount is growing in geometrical progression and more and more people are using marketplaces to participate in the new interesting initiatives. Cryptocurrencies still are not perceived as real money and people are more eager to spend. Uniqueness and ownership opportunities attract different users to be a part of a community. Moreover, costs to create digital assets are much lower than costs to create a physical one, however, some NFTs were sold with the price higher than the price of the physical items (Gucci bag example).

- **Intermediaries' reduction:** Due to the usage of the blockchain NFTs' creators can sell their items directly to buyers without involvement of intermediaries. Transparency of the platform facilitates transactions and makes it easy to use.

Opportunities:

- **Decentralization of traditional financial system:** NFTs support can lead to the creation of new markets and new digital economy as companies keep creating new products and engaging consumers. Entering into the new digital blockchain economy can help brands to concur new communities and markets.

- **New ways of doing marketing:** Metaverses and usage of NFTs gives brands endless possibilities of being creative and create new digital marketing tools. Any initiative is limited only by the fantasy of the marketer. Moreover, in the future of the cookie-less internet, when previous ways of doing marketing would experience significant changes, NFT

communities created by brands in metaverses would make this shift much smoother as companies would have already their target users' list.

- **Engagement:** Due to the usage of NFTs brands can enhance and enlarge their presence in different dimensions. They can expand it in various fields entering into the art and gaming industry. Moreover, providing new interesting initiatives for consumers companies can gain more potential buyers and loyal customers. Using this tool brands can engage wider audiences, creating buzz in the news, making people want to try these new inventions, as people like to be part of the unique cycle and enjoy benefits, which could be provided by the blockchain technology.

- **New communities:** Brands can easily reach new audiences, which were not available before. More and more people are using digital platforms on an everyday basis, many of them are not interested in the fashion or prefer not to buy luxury goods. However, seeing new digital initiatives, made by these companies can make them being engaged and purchase other types of the products offered: like gaming items or unique collectibles.

- **Digital doubles' creation:** Creation of the digital copy of the physical asset is a tool, which many brands are using currently. It can increase the value of the item and engage people. Moreover, having two products both for physical and digital worlds expand possibilities for revenue growth.

- **New ways for expression:** Meta worlds and NFTs give a great playground for self-expressions. Brands can create new collaborations, surprising clients with the most unusual performances and activities. They can create their own worlds, spaces, looks, avatars and many other things, giving a more visual shape to their brand image.

- **Investments:** Being the only version of itself, NFTs are meant to grow in value over the time. This is the reason why many people are buying some unique items, which in some cases they actually do not need. Moreover, regarding brands, they can use this tool to create a buzz around some historic items they were selling a lot of time ago and to launch NFT version of it. And another thing, which is important to highlight – each time token is being resold – the creator gives a part of the margin.

Weaknesses:

- **Novelty of the concept:** NFTs market is now in its emerging phase and the actual future in all the fields is still blurry. The proper deep research of the topic still was not conducted and actual worth and possible future of tokens cannot be defined. The speed of

changes is really high and it is not possible to guess which direction it will take in several years.

- **Regulatory gaps:** For the particular moment of time the proper legal regulation of NFTs market does not exist. Each country is trying to define this concept in its own way, however an international recognition and common regulatory policies still needed to be introduced. Moreover, it is still not clear how revenues and, in general, this type of activity should be indicated in balance sheet. All these gaps affect the perception of NFT concept, creating in some cases sceptical feelings in people.

- **Mistrust:** Because of the lack of information about the concept, the overall mistrust among the entrepreneurs is taking place. Such factors as volatility and speculations, together with the lack of the proper regulatory policy affects the perception and implementation speed of NFTs.

- **Physical copy value:** The value of the digital asset increases even more, when existing physical copy disappears or being destroyed (this example is more valuable for the art industry, when Banksy's painting was burned and its NFT version's price went up). However, there is a great doubt if digital copies could ever be as valuable in a long term as physical versions.

- **GAS fees:** This is an investment that should be made in order to create (mint) an NFT. Gas fee for the actual energy consumption should be paid – only in this case tokens would be minted and posted in the internet.

Threats:

- **High volatility:** Being a part of crypto space, NFTs are facing the same issue – high market volatility. Not being regulated by nobody, but only by market trends, token's market really depends on demand versus supply movements and the situation can change significantly within the night.

- **High level of speculation:** There is no specific criteria which allows to set a price for a token: it is set according to many different factors as perception, usage, nature. Actual value is the price which buyer is willing to pay.

- **Pull-back risk:** In the crypto market this is the phenomena that can happen really often – a pull-back means a great price drop in the value. It can happen not only with crypto currency, but with the value of NFT itself.

- **Intellectual property rights:** Before the purchase the buyer should ensure that the seller is an actual owner of the token as in the process of selling owner transfers the rights to the person who buys it. However, there are many scams existing in the marketplaces.
- **Environmental pollution:** Usage of the blockchain technology requires a lot of power, which affects the environment. However, comparing the pollution which is created by real production of goods it is much lower. But if brands continue creating both things: physical assets and their digital copies – the environmental pollution increases.

3.3 Future of NFTs

The pace with which NFTs are growing the importance in our nowadays life makes it crucial to study and understand the topic even more. Big companies and brands, entering in this market, show that this is not anymore a different gaming reality, which exists only for entertainment – with more and more great market players taking a part of the new digital economy, it is visible that changes are here and they will go only further. But why and what do companies search there? Why some of them still hesitate considering it as a risky gamble and other see it as a great new opportunity?

Using the SWOT analysis, it becomes clear, why some people remain sceptical about this tool: high market volatility, novelty of the concept, lack of regulations. But looking deeper, the opportunities, which it can provide, explain the raising interest and optimism among the brands.

As this concept is relatively new and it will keep developing in future many of the existing weaknesses would be solved with the raise of recognition and regulations. So, what is the future of NFTs for brands and how they can implement it? Here are some important aspects to look at:

- **Web 3.0:** The future of the internet is here – the new technological era is now at the emerging stage, but the pace of development is really high. Even though there are many concerns and unsolved issues now, after some period of time it will take a completely different shape. It is already visible how it can change an ordinary way of doing business, opening new opportunities and possibilities. Use of NFTs can solve many digital marketing problems, which can occur in future: as the world is moving towards a cookie-less internet, it can be a great alternative for marketers in the way the target advertising is made. Moreover, it can be an easy and entertaining way for brands to explore and start operating in virtual reality. Already 3 billion people, what is more than 1/3 of the world's population, are playing videogames, and with time this number is only growing. People keep spending more and more time in digital space, new generations, in other words, potential consumers, are used to live two different

lives – virtual and physical – so this is a great opportunity for brands to keep pace with the progress and be at the same level with target audience.

- **Exclusivity:** As exclusivity is something what fashion brands' customers are looking for in most of the cases, NFTs can really become a tool of creating more unique items and products. Using this technology companies can leverage on the people's inner desire to be different from others. Having an ownership right for the only existing version of some particular good, create a collection, which other people can see, make an avatar, which can represent person's status – is something, what now attracts millions of users of digital platforms. With the growth of the number of people interacting in the web, people prefer virtual collections to physical one, as in the first case they can actually show to everybody what do they own. Moreover, as fashion brands play an important role in helping people to express themselves, with the raise of the use of metaverses they can continue doing so in another reality, where it is needed.

- **Endless design opportunities:** Blockchain platforms and tools give artists and designers an endless playground to express themselves. Everything, what just can come to one's mind can be created: each type of clothes – made of water, fire and all other things – each type of activity and world. With the development of these virtual spaces, the bond between physical and digital realities can become even tighter: people, owning tokenised objects could use them also, wearing a VR or AR glasses. Right now, it is impossible to predict how far it can go, but it can be said that there is a great playground opportunity for everyone.

- **Sustainability:** Even though token minting requires a lot of energy, the pollution from creation of NFTs is 97% lower than the pollution from production of the physical goods. This technology gives a great opportunity for brands to produce goods without the use of factories, plants, transportation and intermediaries. As new generations are more concerned about the environmental issue, in future it can be a way to lower the pollution and meet the desires of society.

- **Transparency:** Blockchain technology opens many possibilities to obtain transparency and demonstrate the authenticity of the product sold. Using NFTs brands can not only create and sell digital goods, but provide a verification of originality for physical products as well. Moreover, using blockchain, people can track a lifespan of the products and be sure of the accuracy of information.

- **New communities:** Entering into the new market, with a great growth potential opens many different opportunities for brands to find new audiences. The move into the new Web 3.0 makes companies more attractive and therefore can draw attention from people, which

were not interested in them before. The presence in metaverse expands brands' opportunities in engagement and interaction with the audience.

- **Distance reduction:** With the elimination of intermediaries and the direct user to creator interactions, it is possible to create more user-centric approach to meet market's needs. One of the features of NFTs is that the buyer gets a possibility to interact even closely with the author, what also facilitates the building of the consumer loyalty. This way brands can create communities of brand advocates and receive useful feedbacks from its customers.

- **Higher revenues:** If nowadays companies are using intermediaries, in the near future the use of blockchain technology will eliminate the need of doing so. With lower costs of production, less interactions with third parties it is easier to generate profits. Moreover, NFTs, being created ones bring creators royalties during their whole period of existence: each time item is resold – the creator gets a part of revenue.

- **Metaverse constant growth:** With the constant growth of users enjoying opportunities provided by virtual worlds and spending billions of dollars on virtual goods, metaverses would become a perfect place for brands to sell their products and to leverage profits.

- **Storytelling:** NFTs are a great tool to capture and transmit the history of the brand. People appreciate things, which have a story behind, especially if they know that after some period of time it will become even more precious and unique. NFTs give an opportunity to make a storytelling in many different ways. It can be engaging and fascinating, and, what is even more important, it can have a recall for emotions: create a stronger bond between the buyer and the brand. Moreover, such tokens can generate higher value, because the more time passes – the more precious they become.

Summing all up, it is possible to say that NFTs have a great potential to become one of the most important tools in the way businesses operate. Being at the emerging stage, tokens are characterized by certain characteristics that can cause concern to market participants. However, taking into account the speed of their development, it can be said that in the near future many problems, such as lack of regulation, will be resolved. Along with the further growth of the virtual market, new opportunities and horizons will open up, and the positive characteristics that tokens already have will increase exponentially. It is safe to say that the use of NFT opens up new opportunities for companies to communicate with the audience and can allow them to build new ways of marketing and creating goods.

Given the pace of Internet development and the high likelihood of disabling cookies, this technology should attract the attention of marketers, since at this stage, using all available

marketing tools, an ideal base can be prepared for future operations. NFTs and their components can become a new medium for creating advertising, finding a potential audience and a way to communicate online.

Of course, there are both pros and cons to being among the first to adopt this technology, but the positives far outweigh the negatives. Despite the fact that this market is still not stable and accurate forecasts about its development cannot be made, along with problems in accounting and other aspects of regulation, its first participants can already reap the benefits in the form of increased visibility, expansion of the client base and getting a wider range of tools for interacting with the audience. Moreover, while not yet filled, the first players in this market will be able to get a large share of it, while gaining experience and experimenting.

The NFTs do have great prospects for the future and there is a strong possibility that they will be even wider than we can imagine at the moment.

Conclusion

The world does not stand still and is rapidly developing in all the spheres of life. Being in the era of information technology, each subsequent shift is faster than the previous one. Gradually moving from the Web 2.0 to the Web 3.0, a number of other areas of life will change. Thanks to the blockchain, metaverses and NFTs, a new type of market is emerging - the digital market, which opens up a whole range of new opportunities for its participants. Now, just like in the tradition of the best science fiction movies, there is an opportunity to truly live two different lives - a real one and its digital representation. The possibilities of the second, digital version, are endless: any fantasies can be realized and any objects created. Brands can discover a new universe of opportunities, both in products and services. Moreover, the possibility of combining these two worlds can also increase the profitability of companies.

It might seem less real if major companies such as Meta, Google, Gucci, Louis Vuitton, Ferrari and many others have not begun to master these new horizons en masse. No technology will be widespread unless it is used by a significant number of people, but this influx of participants automatically sets off a cycle of growth and increasing use of the virtual world.

Indeed, brands follow their customers, and as more and more people begin to explore the meta world, companies want to become participants in it as soon as possible in order to enjoy the opportunities of pioneering.

However, it is not only this, it is also the fact that the use of NFTs provides a wide range of instruments to develop and improve the way of doing business in the future. Undoubtedly, this is a unique tool that can change the world of marketing after the disappearance of cookies, but it can also improve the gamification of existing strategies and create new communities.

Fashion brands have already experimented in all the different spheres of NFTs' creation: customized characters in games, 3D galleries, virtual garments, in-game items, tributary videos as artwork and many others. All these initiatives resulted into positive reactions from the audience and profit growth for the companies.

If we talk about the digital economy, then thanks to blockchain technology, all transactions can take place transparently and safely, and tokens make it possible to firmly strengthen the possibility of real ownership of the purchased goods. Moreover, eliminating intermediaries, makes it easier for brands to communicate closely with their clients.

Every day more and more companies declare their presence in this virtual world, thus showing their faith in the prospects of this market.

Obviously, all innovations have both positive and negative aspects. Being at an early stage of development, the digital market is subject to strong volatility and there is a high level of speculation. The system of real regulation and accounting is also absent at the moment. Many believe in the future of this technology, while others say that this is just a bubble that will burst after some time. It will be possible to understand how it will actually be only after a while, however, analyzing the activity and results of existing initiatives, it is possible to say that this is only the beginning and along with the further development of this tool, new opportunities will appear and most of the problems which cause concerns at this stage will be solved.

References

1. Abbasi, A. (2022). *Council Post: The Metaverse And NFTs: What Agencies And Brand Leaders Should Know*. Forbes. From <https://www.forbes.com/sites/forbesagencycouncil/2022/01/06/the-metaverse-and-nfts-what-agencies-and-brand-leaders-should-know/?sh=25f7c4304200>.
2. Abrol, A. (2022). *Solana Vs. Polygon Vs. Ethereum – The Ultimate Comparison* -. Blockchain-council.org. From <https://www.blockchain-council.org/blockchain/solana-vs-polygon-vs-ethereum/>.
3. *A Complex Commercial Litigation Law Firm in Coral Gables, Miami*. Kozyak Tropin & Throckmorton. (2022). Retrieved 8 May 2022, from <https://kttlaw.com>.
4. *Adidas: Metaverse*. Adidas. (2022). From <https://www.adidas.com/us/metaverse>.
5. Ante, L. (2021). The non-fungible token (NFT) market and its relationship with Bitcoin and Ethereum. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3861106>
6. *A virtual Gucci bag sold for over \$4,000 — more than the real deal*. Inputmag. (2022). From <https://www.inputmag.com/style/roblox-gucci-bag-handbag-purse-digital-virtual-nft-sold-4000>.
7. BARRY, C. (2022). *Gucci digitally outfits Gen-Z in metaverse foray with Roblox*. AP NEWS. From <https://apnews.com/article/gucci-roblox-76339d10f139e9b0d39761bd8426c11e>.
8. Balis, J. (2022). “How Brands Can Enter The Metaverse”, Harvard Business Review, <https://hbr.org/2022/01/how-brands-can-enter-the-metaverse>
9. Ball, M. (2022), “*The metaverse: and how it will revolutionize everything*”, Liveright Publishing Corporation, from www.matthewball.vc/all/forwardtothemetaverseprimer
10. Bingol, V. (2022). *Gucci Case Study: How NFTs are Revolutionizing the Fashion Industry*. 440industries.com. From <https://440industries.com/gucci-case-study-how-nfts-are-revolutionizing-the-fashion-industry/>.
11. *Bizzarri: “Con Gucci investiamo nel metaverso”*. Pambianconews notizie e aggiornamenti moda, lusso e made in Italy. (2022). From <https://www.pambianconews.com/2022/03/29/bizzarri-gucci-accelera-investimenti-nel-metaverso-342849/>.
12. Bloomberg, ‘NFT Market Surpassed \$40 Billion in 2021, New Estimate Shows.’ From <https://www.bloomberg.com/news/articles/2022-01-06/nft-market-surpassed-40-billion-in-2021-new-estimate-shows>.
13. *BOSS x Russell Athletic NFT | BOSS Inspiration | HUGO BOSS*. Hugoboss.com. (2022). From <https://www.hugoboss.com/boss-russell-athletic-nft/>.

14. Bourcart, C. (2021). *How Brands Can Benefit From Non-Fungible Tokens (NFTs)*. Medium. From <https://bettermarketing.pub/how-brands-can-benefit-from-non-fungible-tokens-nfts-dc38500a1c26>.
15. Brown, D. (2021). *Big Tech Wants to Build the 'Metaverse.' What on Earth Does That Mean? "*. From <https://www.washingtonpost.com/technology/2021/08/30/what-is-the-metaverse/>.
16. *BURBERRY-DROPS-NFT-COLLECTION-IN-MYTHICAL-GAMES'-BLANKOS-BLOCK-PARTY*. burberry Corporate Website. (2022). From <https://www.burberryplc.com/en/news/brand/2021/Blankos.html>.
17. Buyer, L. (2021). *A Marketer's Guide To NFTs And The Metaverse*. Search Engine Journal. From <https://www.searchenginejournal.com/nfts-metaverse-marketing-guide/427528/#close>.
18. Calandra, C. & Chiu, E. (2021). *Into the Metaverse*. Wunderman Thompson Intelligence.
19. *CHITO x GIVENCHY NFT*. nft.givenchy.com. (2022). From <https://nft.givenchy.com>.
20. *Clinique: NFT*. (2022). From <https://www.clinique.com/nft>.
21. Companies Market Cap. (2022). "Largest Companies By Market Cap", Global Ranking, <https://companiesmarketcap.com/>.
22. *Collezione Genesi NFT di Dolce&Gabbana..* Aviontourism.com. (2022). From <https://www.aviontourism.com/it/luxury/lifestyle/shopping/la-collezione-genesi-nft-di-dolce-gabbana-42409>.
23. CURETON, D. (2022). *Barbados To Open World-First Metaverse Embassy - XR Today*. XR Today. From <https://www.xrtoday.com/virtual-reality/barbados-to-open-world-first-metaverse-embassy/>.
24. Dalton, J., & Gillham, J. (2022). *Seeing is believing: How virtual reality and augmented reality are transforming business and the economy*. From <https://www.pwc.com/gx/en/technology/publications/assets/how-virtual-reality-and-augmented-reality.pdf>.
25. Emergen Research. (2022). *Metaverse Market Share | Metaverse Industry Forecast 2021-2030*. Emergenresearch.com. From <https://www.emergenresearch.com/industry-report/metaverse-market>.
26. Farrington, R. (2022). *Why Big Brands Are Spending Millions On NFTs*. Forbes. From <https://www.forbes.com/sites/robertfarrington/2021/12/25/why-big-brands-are-spending-millions-on-nfts/?sh=104a410c6117>.
27. Faurote, A. (2022). *Introducing 10KTF Gucci Grail: Gucci's Latest Vault Project Dedicated To NFTs*. Hauteliving.com. From <https://hauteliving.com/2022/03/10ktf-gucci-grail/710334/>.

28. Fonarov, O. (2022). *Council Post: What Is The Role Of NFTs In The Metaverse?*. Forbes. From <https://www.forbes.com/sites/forbestechcouncil/2022/03/11/what-is-the-role-of-nfts-in-the-metaverse/?sh=3c849bb46bb8>.
29. Grider, D. (2021). "The Metaverse: Web 3.0 Virtual Cloud Economies". Grayscale Research, From https://grayscale.com/wpcontent/uploads/2021/11/Grayscale_Metaverse_Report_Nov2021.pdf
30. *Gucci Garden*. Roblox Wiki. (2022). From https://roblox.fandom.com/wiki/Gucci_Garden.
31. *Gucci Garden*. (2022). From <https://guccigarden.gucci.com/#/en/>.
32. *Gucci Launches First NFT, a Film Inspired by Recent Aria Collection*. HYPEBEAST. (2022). From <https://hypebeast.com/2021/5/gucci-nft-debut-film-aria-collection-inspired-announcement>.
33. Gummer, M. (2022), "What opportunities does the metaverse hold for luxury brands in 2022". From <https://jingdaily.com/metaverse-2022-china-5g-baidu/>
34. Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. (2022). *Navigating the Metaverse*. John Wiley & Sons, Incorporated.
35. Hendaoui, A., Limayem, M., & Thompson, C. W. (2008). "3D social virtual worlds: research issues and challenges". IEEE internet computing, 12(1), 88-92.
36. *High Digital Fashion Drops into Fortnite with Balenciaga*. Epic Games' Fortnite. (2022). From <https://www.epicgames.com/fortnite/en-US/news/high-digital-fashion-drops-into-fortnite-with-balenciaga>.
37. Hootsuite. (2021). Digital 2021 Global Overview Report, From <https://wearesocial.cn.s3.cn-north-1.amazonaws.com.cn/common/digital2021/digital-2021-global.pdf>
38. İLDAŞ, G. (2022). *METAVVERSE 101 UNDER THE THEORY OF DIFFUSION OF INNOVATIONS* [Ebook] (pp. 443-473). Iksad Publications. From https://www.researchgate.net/profile/Goerkem-Ildas/publication/359711328_METAVVERSE_101_UNDER_THE_THEORY_OF_DIFFUSION_OF_INNOVATIONS/links/624ab2385e2f8c7a03589ea5/METAVVERSE-101-UNDER-THE-THEORY-OF-DIFFUSION-OF-INNOVATIONS.pdf.
39. *Infographic: The Luxury Brands Selling Luxury NFTs*. Statista Infographics. (2022). From <https://www.statista.com/chart/26869/luxury-fashion-nfts/>.
40. Irem, B. (2022). *The Relationship Between NFTs and Metaverse - NFT Horizon*. NFT Horizon. From <https://nfthorizon.io/the-relationship-between-nfts-and-metaverse/>.
41. *Jimmy Choo: NFT*. (2022). From https://row.jimmychoo.com/it_IT/eric-haze-poggy-nft.html.
42. Johnston, L. (2021), "Nike's next metaverse move is RTFKT pickup". from <https://consumergoods.com/nikes-next-metaverse-move-rtfkt-pickup>

43. Kim, J. (2021). "Advertising in the Metaverse: Research Agenda", *Journal Of Interactive Advertising*, 21(3), 141–144.
44. Khalfallah, B. (2022). *NFTs: How Brands Use Them as a Marketing Tool*. Medium. From <https://medium.com/join-implement/nfts-how-brands-use-them-as-a-marketing-tool-35055c0a7436>
45. Knauff, J. (2022). *Technology That Will Revolutionize the Way You Think About Search*. *Search Engine Journal*. From <https://www.searchenginejournal.com/search-engine-technology/256223/#close>.
46. KOGAN, C. (2021). *Metaverse opens the gateway for luxury NFTs to become a multi-billion market*. From <https://cointelegraph.com/news/metaverse-opens-the-gateway-for-luxury-nfts-to-become-a-multi-billion-market>.
47. Ko, E. (2022). *Gucci Opens 'Vault', A Concept Store In Metaverse That Sells 'Supergucci' NFTs - DesignTAXI.com*. Designtaxi.com. From <https://designtaxi.com/news/417437/Gucci-Opens-Vault-A-Concept-Store-In-Metaverse-That-Sells-Supergucci-NFTs/>.
48. Lee, A. (2021). "With the Metaverse hype cycle at full blast, experts take the long view", *DigiDay*. From <https://digiday.com/marketing/with-the-metaverse-hypecycle-at-full-blast-experts-take-the-long-view/>.
49. Lee, A., Trimi, S., Byun, W. K., & Kang, M. (2011). Innovation and imitation effects in Metaverse service adoption. *Service Business*, 5(2), 155-172.
50. Li, J. (2022). *Gucci Launches First NFT, a Film Inspired by Recent Aria Collection*. *HYPEBEAST*. From <https://hypebeast.com/2021/5/gucci-nft-debut-film-aria-collection-inspired-announcement>.
51. *Lindsey McInerney on LinkedIn: How Marketers Plan to Conquer the Metaverse*. *Linkedin.com*. (2022). From <https://www.linkedin.com/feed/update/urn:li:activity:6836731787553730560/>.
52. *Louis Vuitton Launches NFT Game 200-Year Anniversary Celebration*. *Highsnobiety*. (2022). From <https://www.highsnobiety.com/p/louis-vuitton-nft-game/>.
53. *Luxury NFTs could become a \$56 billion market by 2030 and could see 'dramatically' increased demand thanks to the metaverse, Morgan Stanley says*. *Markets Insider*. (2022). From <https://markets.businessinsider.com/news/currencies/luxury-nfts-metaverse-56-billion-market-revenue-2030-morgan-stanley-2021-11>.
54. *Making sense of bitcoin, cryptocurrency and blockchain*. *PwC*. (2022). From <https://www.pwc.com/us/en/industries/financial-services/fintech/bitcoin-blockchain-cryptocurrency.html>.

55. Marketing Dive, October 2021. 'Verizon showcases 5G with metaverse treasure hunt.' From: <https://www.marketingdive.com/news/verizon-showcases-5g-with-metaverse-treasure-hunt/607746/>.
56. MCDOWELL, M. (2022). *Inside Gucci and Roblox's new virtual world*. Vogue Business. From <https://www.voguebusiness.com/technology/inside-gucci-and-roblox-new-virtual-world>.
57. MCDOWELL, M. (2022). *The Vogue Business NFT Tracker*. Vogue Business. From <https://www.voguebusiness.com/technology/the-vogue-business-nft-tracker>.
58. McKinsey. (2020). "How COVID-19 has pushed companies over the technology tipping point—and transformed business forever", McKinsey&Company, October 5 in 2020 Survey, <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-haspushed-companies-over-the-technology-tipping-point-and-transformedbusiness-forever>
59. Mersch, M. & Muirhead, R. (2019). "What Is Web 3.0 & Why It Matters", Fabric Ventures.
60. Meta, (2021). "Introducing Meta", YouTube, https://www.youtube.com/watch?v=pjNI9K1D_xo
61. *Metaverse and NFT marketing: Are you future-proofing your brand? | Partner Content | Campaign Asia*. Campaign Asia. (2022). From <https://www.campaignasia.com/article/metaverse-and-nft-marketing-are-you-future-proofing-your-brand/475759>.
62. MOLETI, D. (2022). *Creare NFT: meglio il minting su Polygon, Ethereum o Solana?*. Trend Online. From <https://www.trend-online.com/bitcoin/creare-nft-ethereum-polygon-solana/>.
63. Moy, C., & Gadgil, A. (2022). *Opportunities in the metaverse: How businesses can explore the metaverse and navigate the hype vs. reality* [Ebook]. JPMorgan Chase. From <https://www.jpmorgan.com/content/dam/jpm/treasury-services/documents/opportunities-in-the-metaverse.pdf>.
64. Nadini, M., Alessandretti, L., Di Giacinto, F., Martino, M., Aiello, L., & Baronchelli, A. (2021). Mapping the NFT revolution: market trends, trade networks, and visual features. *Scientific Reports*, 11(1). From <https://doi.org/10.1038/s41598-021-00053-8>
65. Nast, C. (2022). *Clinique's first NFT ties to loyalty and products as uses expand*. Vogue Business. From <https://www.voguebusiness.com/technology/cliniques-first-nft-ties-to-loyalty-and-products-as-uses-expand>.
66. Nast, C. (2022). *Louis Vuitton to release new NFTs*. Vogue Business. From <https://www.voguebusiness.com/technology/louis-vuitton-to-release-new-nfts>.
67. *NFT Analytics Platform*. NFTGO. (2022). From <https://nftgo.io>.

68. *NFT Lamborghini*. Nft.lamborghini.com. (2022). From <https://nft.lamborghini.com>.
69. *Non-fungible tokens: what's in store for 2022?*. Morgan Lewis (2022). From <https://www.morganlewis.com/-/media/files/publication/morgan-lewis-title/white-paper/2022/non-fungible-tokens-whats-in-store-for-2022.pdf>.
70. *NIKE, Inc. Acquires RTFKT*. Nike News. (2022). From <https://news.nike.com/news/nike-acquires-rtfkt>.
71. *Now, Gucci Will Accept Payments In Cryptocurrency*. NDTV.com. (2022). From <http://www.ndtv.com/business/now-gucci-will-accept-payments-in-cryptocurrency-2951543>.
72. PAULY, A. (2022). *Gucci Launches Vault, an Experimental Online Store*. Highsnobiety. From <https://www.highsnobiety.com/p/gucci-vault-store/>.
73. *PRESS RELEASE: 2021 annual results*. Kering.com. (2022). From https://www.kering.com/assets/front/documents/Kering_Press%20release_2021%20FY%20Results_17022022.pdf.
74. Puthussery, A. (2020). *Digital Marketing*. Google Books. From https://books.google.it/books?hl=ru&lr=&id=wFjTDwAAQBAJ&oi=fnd&pg=PT3&dq=digital+marketing+tools+paid+advertising&ots=qQYmD030OU&sig=qvnTBVNDSQGEZnzeYI ZRNR0q198&redir_esc=y#v=onepage&q=digital%20marketing%20tools%20paid%20advertising&f=false
75. Rodgers, S., & Thorson, E. (2000). The Interactive Advertising Model. *Journal Of Interactive Advertising*, 1(1), 41-60. From <https://doi.org/10.1080/15252019.2000.10722043>
76. *RTFKT*. Rtfkt.com. (2022). From <https://rtfkt.com>.
77. *RTFKT: Defining Art x Fashion in the Age of NFTs*. NFTS.WTF. (2022). From <https://nfts.wtf/rtfkt-defining-art-x-fashion-in-the-age-of-nfts/>.
78. RÖLKENS, F., YOUNG, R., BROWN, P., LE MERLE, L., CRUMP, H., & DARGAN, A. (2022). *The State of Fashion 2022*. McKinsey. From <https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/state%20of%20fashion/2022/the-state-of-fashion-2022.pdf>.
79. *Samsung Announces 2022 TVs With Integrated NFT Platform*. WeRSM - We are Social Media. (2022). From <https://wersm.com/samsung-2022-tv-lineup-with-integrated-nft-platform/>.
80. Schiffman, L.G. & Kanuk, L.L. (2004). *Consumer Behavior*. New Jersey: Prentice Hall
81. SILBERT, J. (2022). *SUPERGUCCI NFTs by Gucci & SUPERPLASTIC Release Date, Price*. Highsnobiety. From <https://www.highsnobiety.com/p/gucci-superplastic-supergucci-nft-collab/>.
82. Si, X., Jin, H., Sun, Y., Zhu, J., Zhu, L., Song, X., & Lu, Z. (2020). *Blockchain Technology and Application*. Springer Singapore, Imprint: Springer.

83. Stanchieri, M. (2021). *NFTs are marketing tools, not a products*. nss magazine. From <https://www.nssmag.com/en/fashion/27959/brands-are-wrong-about-nfts>.
84. Tapscott, A. (2021). *DIGITAL ASSET REVOLUTION: The Rise of DeFi and the Reinvention of Financial Services* [Ebook]. Blockchain Research Institute. From https://www.vcmx.ca/mrws/filedriver/TapscottAlex_DigitalAssetRevolution_BlockchainResearchInstitute.pdf.
85. Tas, G. (2022). *The Ultimate Guide for NFT Marketing Strategy*. Digital Agency Network. From <https://digitalagencynetwork.com/the-ultimate-guide-for-nft-marketing-strategy/>.
86. *The Top Metaverse Platforms in 2022 to Watch - XR Today*. XR Today. (2022). From <https://www.xrtoday.com/virtual-reality/the-top-metaverse-platforms-in-2022-to-watch/amp/>.
87. *The OECD Blockchain Primer*. OECD. (2020). From <https://www.oecd.org/finance/OECD-Blockchain-Primer.pdf>.
88. Thune, K. (2022). *How Do NFT Royalties Work?*. SeekingAlpha. Retrieved 8 May 2022, from <https://seekingalpha.com/article/4483346-nft-royalties>.
89. Tong, A. (2022). *Luxury fashion brands poised to join the NFT party*. Vogue Business. From https://www.voguebusiness.com/technology/luxury-fashion-brands-poised-to-join-the-nft-party?itm_source=manual_article_recommendation.
90. Twitter. (2022). From <https://twitter.com/rftktstudios/status/1381662618000187396?lang=en>.
91. *UNXD: Digital Luxury & Culture NFTs*. UNXD. (2022). From <https://unxd.com/drops/collezione-genesi>.
92. Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). *Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges*. arXiv.org. From <https://arxiv.org/abs/2105.07447>.
93. Webster, A. (2021). *You can now explore a surreal Gucci garden inside Roblox*. The Verge. From <https://www.theverge.com/2021/5/17/22440134/gucci-garden-roblox-experience-metaverse-date>.
94. *What is Blockchain Technology? - IBM Blockchain | IBM*. Ibm.com. (2022). From <https://www.ibm.com/topics/what-is-blockchain>.
95. *Why NFTs Are The Keys To Accessing The Metaverse | Binance Blog*. Binance Blog. (2022). From <https://www.binance.com/en/blog/nft/why-nfts-are-the-keys-to-accessing-the-metaverse-421499824684903085>.
96. Wilson, M. (2022). *2022 Outlook*. Advisor Morgan Stanley. From <https://advisor.morganstanley.com/the-brandywine-group/documents/field/b/br/brandywine-group/On%20the%20Markets%20January%202022.pdf>.

97. Wisdom, J., Chor, K., Hoagwood, K., & Horwitz, S. (2013). Innovation Adoption: A Review of Theories and Constructs. *Administration And Policy In Mental Health And Mental Health Services Research*, 41(4), 480-502. <https://doi.org/10.1007/s10488-013-0486-4>

LUISS



Department
of Business and Management

Course of Digital Marketing

SUMMARY: Current perspectives and future outlooks for brands' use of NFTs and their impact on marketing

Prof. Maximo Ibarra

SUPERVISOR

Prof. Luigi Laura

CO-SUPERVISOR

ID No. 728881 – Kristina Paolovna Girlando

CANDIDATE

Academic Year 2021/2022

Table of Contents

<i>Introduction</i>	3
<i>Chapter 1. Current digital trends at the global markets</i>	4
1.1 Current digital trends	4
1.2 What big companies are heading to?	5
1.3 Implications: financial, marketing and business.....	7
<i>Chapter 2. Deep-dive into the metaverse theory</i>	9
2.1 What is NFT?.....	9
2.1.1 NFT types and marketplaces	9
2.1.2 Use of NFTs.....	10
2.2 Blockchain	10
2.2.1 Blockchain platform types.....	11
2.3 Metaverse.....	11
2.4 Metaverse and NFTs as complementary concepts	11
2.4.1 Ways to leverage profits in the metaverse.....	12
2.5 Examples of metaverses	12
<i>Chapter 3. Gucci case study and future of NFT</i>	13
3.1 Gucci case study	13
3.2 SWOT-analysis.....	16
3.3 Future of NFTs	17
<i>Conclusion</i>	20
<i>References</i>	21

Introduction

The de-materialization of fashion industry is gaining momentum and it will change the way this sector operates very soon. Nowadays more and more big companies are entering into the digital meta world. Many luxury brands already experienced or are about to experience advantages of the blockchain products. Such well-known names as Gucci, Louis Vuitton, Burberry, Bulgari, Nike, Coca-Cola, Ferrari and many others are spending fortunes to be on the wave of this trend. The most interesting and the least studied direction of this is NFT concept. Why do brands go to release their NFTs if it seems to be so understudied and vanished?

This subject was chosen for the analysis as it is one of the mavericks' topics of the moment. Operating in the metaverses companies could connect their digital and the real-world presence in a new way. They can get new opportunities in content creation, marketing strategies, products development, services offering and revenue generation. Using metaverse brands can build new buying journeys, which in turn could empower them to become active participants in the purchasing process again (Hackl et al., 2022).

NFTs or non-fungible tokens are based on the concepts of decentralized finance and blockchain. This technology provides perfect opportunity for selling and purchasing virtual goods, being efficient, transparent and autonomous. Existing in metaverses, tokens provide a ground for a digital fair economy, which can benefit all the participants.

However, due to novelty of the concept, there are still many shortcomings, such as lack of regulations, high market volatility and scarcity of information available, what creates a scepticism, when it comes to implementation of this tool.

The **purpose** of this work is to deep-dive into the NFT concept, analyse current trends in the global market, find actual and possible applications and understand the impact which the use of this tool in the brand's marketing strategy may have: to evaluate strengths and weaknesses, which exist.

This subject is relatively new and understudied, but it is rapidly gaining momentum and is about to change the world of fashion we used to know, what makes it interesting for further discussion and analysis. Moreover, with the lack of proper research available, this work may have a significant importance for future studies as it will include main concepts and current dynamics of NFTs' applications and their development.

The paper is focused on answering following questions:

- What does NFT mean and why this topic is becoming so prevalent?
- What are the actual and possible applications of NFTs?
- Which impact the use of NFTs may have for brands?

- What is the possible future of NFTs in fashion industry?

The literature available is really neglected; sources, which were used for the research are based on relatively new materials, which are tend to change frequently with further development of the topic. The **methodology** for this study is an analysis of existing metaverses and marketplaces, its players, in particular Gucci case study. The analysis of the reports, released by the financial and analytical companies such as JP Morgan Chase, PwC, McKinsey was made, along with the study of the wide range of case studies and analysis of the monographs related to the technological aspect of the topic. The SWOT-analysis on the applications of NFTs was made and the critical discussion on its efficiency was delivered.

First chapter of the work is dedicated to the current market trends in the luxury industry with the focus on marketing and financial implications of the use of NFTs and metaverses.

Second chapter introduces the theoretical part of abovementioned concepts, explaining the technology, on which NFTs are based on – the blockchain system – terms themselves and main platforms, which are used for creation, purchases, and for actual usage of them.

Third chapter is a Gucci case study and SWOT-analysis with critical discussion of the future of NFTs and metaverse's application by the main fashion industry players, its advantages and disadvantages.

Chapter 1. Current digital trends at the global markets

This chapter is dedicated to an overview of current digital trends in the market as more and more companies with an enormous market capitalisation are entering in the new virtual reality world. NFTs and metaverse terminology does not sound anymore as something related only to gaming industry, but becoming an essential part of our everyday life. Why does it happen? And what companies are looking for in the online universe?

1.1 Current digital trends

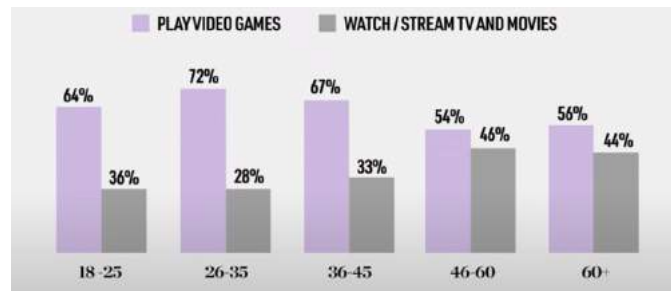
Nowadays many people live in the world that is called metaverse. This is something free from the two-dimensional internet, people were used to know before – it is new internet breaking three-dimensional environment (Hendaoui et al., 2008). With the changes accrued in the world, fashion brands are also heading to achieve this dematerialization concept, which is going to change the way this business works.

Fashion industry is an important part of the life of everyone, the way people dress says a lot about who they are. And this industry goes through all the changes, which accrue and adapt to

them. With the pandemic the world stayed home, but there still was the place to express yourself – metaverse (McKinsey, 2020).

Coming from the gaming world, which accounts already 3 billion people, spending over 100 billion dollars a year for digital goods, metaverse has grown its importance (Tapscott, 2021). Nowadays, people choose to spend their time playing games over spending time watching movies.

Figure 1. Preferences in the choice of entertainment



Source: BoF insights from Limelight Networks, Newzoo, Statista, Motion Picture Association

People prefer to express themselves in the web, showing their personalities through items they use and the way they dress their avatars. This place became a perfect playground for fashion brands to reach new consumers.

According to Lydia Hylton, an investor at Redpoint Ventures¹, companies are ultimately driven by the potential for earnings, and NFTs are a new revenue stream and engagement tool for brands (Farrington, 2022). Moreover, this tool gives a new way to increase engagement with customers. NFTs can be used to reward and incentivize consumers through innovative gifts, exclusive access, and more.

According to NFT investor Andrew Lokenauth² digital world is the future and that is the reason why famous brands are spending great amounts of money to enter in it. Possibilities which digital world is giving are endless – this is why brands are spending big. The world is taking a new shape and nobody knows yet, where it will go.

1.2 What big companies are heading to?

What big brands are looking for in the digital world? As it was already mentioned, being on the wave of current trends is something that keeps brands vital. Entering into the new market

¹ Venture capital firm focused on investments in seed, early and growth-stage companies

² Vice President and Head of Financial Reporting & Accounting Policy in Cover Genius
<https://www.linkedin.com/in/lokenauth/>

companies gain new consumers, get new possibilities in the way they do business. All these lead to increase in profit and loyalty.

According to Morgan Stanley NFTs and meta games could affect a luxury group's total addressable market, increasing it more than at 10% in eight years, where digital demand for fashion and luxury brands reaching \$50 billion by 2030 (Wilson, 2022).

In order to understand how did it happen, first, it is important to understand the history and future of the internet.

When the information economy just started to develop, in the Web 1.0, it was all about the creation of the infrastructure, making a one-way flow. In the We 2.0 the two-way information flow was created: it was a time of social networks, flourishing different types of content sharing, possibilities of online trading and ecommerce. In the new Web 3.0 the new kind of economy raised, so called decentralized one, which opened a completely new world, where users can get a power in the virtual world. People can live a full life in a meta world, where they will have everything and even more (Mersch, M. & Muirhead, R., 2019).

In the metaverse brands can create and participate in all the types of activities, which our imagination can allow us to think about: exhibitions, fashion shows, masterclasses, product launches and, of course, games (Hootsuite, 2021). Some brands are creating its own metaverses, where they set their own rules, others use already existing ones, where the number of users exceeds billions, what makes them a perfect place to reach new audiences.

NFTs market capitalization is growing in geometric progression and just speeds up (KOGAN, 2021).

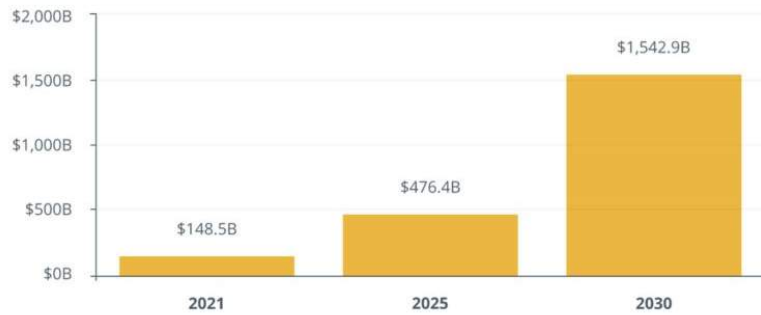
Figure 2. NFTs market capitalization, November 2021



Source: NFTGO

According to PwC the metaverse market is entering in the phase of the fast growth and will reach \$1.5 trillion by 2030 (Dalton & Gillham, 2022).

Figure 3. Metaverse market size



Source: PwC

Many experts describe this shift as similar to the one, which happened in 2007, when there was a boom of social medias (Knauff, J., 2022). However, in the case of Web 3.0, the shift is happening much faster and intense.

1.3 Implications: financial, marketing and business

There are different ways to use metaverse and NFTs for business development. Here are few different examples, which have two different scopes.

Dolce & Gabbana created the NFT Alta Gioielleria collection³ and sold it for about 5.6 million and a half dollars. In this case tokens worked as a monetization tool and metaverse was the place to extend sales opportunities and explore new profit possibilities.

On the other hand, Clinique⁴ has chosen another path and decided to update its loyalty program and instead of selling NFTs gave costumers, who wanted to participate in the rewards program, the chance to win them, completing some tasks. Winners could receive a possibility to get free Clinique's products for the next 10 years and a unique token molecule that changes colors.

In the Dolce & Gabbana case the final aim was to increase profits and get the buzz in the media, whereas Clinique decided to foster loyalty and engagement of its consumers.

So, this tool can be used for achievement of different goals and gives a field for imagination and creativity. It can work in the long term, as in the example of Clinique, as well as in the short term – Dolce & Gabbana.

But what actually now is getting more and more interesting for meta users is gaming industry. Brands release merch for already existing games or create its own. In the anniversary of the founder's 200 birthday Louis Vuitton released Louis: The Game⁵. Players need to search

³Collezione Genesi NFT di Dolce&Gabbana. Aviontourism.com. (2022). From <https://www.aviontourism.com/it/luxury/lifestyle/shopping/la-collezione-genesi-nft-di-dolce-gabbana-42409>.

⁴Clinique: NFT. (2022). From <https://www.clinique.com/nft>.

⁵Nast, C. (2022). Louis Vuitton to release new NFTs. Vogue Business. From <https://www.voguebusiness.com/technology/louis-vuitton-to-release-new-nfts>.

collectible NFT candles in the virtual reality. Each of them tells the story of Louis's family. 30 NFTs are hidden in the game, 10 of which are made by Beeple, famous artist, which NFT was sold 69.3 million. In the first week half of millions of users tried the game.

One of the key factors of a good marketing strategy is to offer various interesting experiences to the customers which is giving something more than company's products and services. It is very important to create relevant communities and to improve the relations between the brand and the audience. It has a significant effect on consumer loyalty and increase customer lifetime value. With NFTs this aim can be achieved. It contributes to the goal of conversion generation and sales boosts.

So which opportunities use of NFTs provides? How brands can exploit its possibilities?

- 1. Creation of unique brand experiences;**
- 2. Fostering brand awareness and loyalty;**
- 3. Community building and increasing followers' interactions;**
- 4. Create a brand image and show its position;**
- 5. Open a new revenue stream;**
- 6. Use NFTs as authentication tool.**

Summing all up, there is a great trend in the luxury industry to use digital tools and virtual reality in the companies' business strategy.

As we are now living in the time of the Web 3.0 the world is changing dramatically and in order to be in line with times and to gain new customers, brands have a great opportunity to enter in the meta world to extend their possibilities.

This is absolutely new reality, which represents our offline world, so companies can enjoy flow of new consumers if they implement the switch correctly. Moreover, the costs of creation of digital assets are much lower than the cost of creation of physical ones, however, their sell price can be even higher in the virtual world.

Businesses can engage more people, using this gamification method, which is, as we know, the best way to keep customers being interested. It opens a way for new collaborations, new loyalty programs and marketing strategies, new audience and more buzz in the media, and, as a result higher profits.

Now we are going to deep-dive in these concepts in order to understand what do they actually mean.

Chapter 2. Deep-dive into the metaverse theory

This chapter is focused on the theoretical part of the whole NFTs concept and its main components. As we are talking about the internet 3.0 there are many different terms that cannot exist separately. It is impossible to talk only about NFTs, because it is based in blockchain, used in different metaverses and marketplaces, sold and purchased using cryptocurrencies. In just one sentence it was important to mention different concepts, which cannot be put apart. The purpose of this chapter is to understand what does this term mean, how it can be used and why it creates that much buzz around itself. As in this work the main topic is the application of NFTs in business strategies, concepts of NFTs and metaverse are primary here.

2.1 What is NFT?

NFT is a non-fungible token, what means that it is a unique digital asset, that cannot be replaced and which gives an ownership right, written in the blockchain (Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. 2022). In other words, it creates a link between a physical object, that exists in real life (but not only an object – it can be even a memory) and its virtual copy and, through specific codes which are encrypted, gives an authentic verified proof of the ownership. Everything can be converted into these tokens, starting from real pieces of art, houses, clothes, ending with songs and memories. NFTs are like any other collective objects, but instead of buying a physical one, people are paying for a digital representation with a proof of ownership of the original copy (Wang et al., 2021).

The fact that the ownership right is recorded in blockchain, the platform, where all the information is stored and cannot be eliminated, changed or hacked makes NFTs very attractive for collectors (Ante, 2021). Sometimes they pay huge amounts of money not for the item itself, but in order to get this particular property right.

2.1.1 NFT types and marketplaces

There are different types of NFTs that can be created (Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. 2022):

1. *Collectibles;*
2. *Art;*
3. *Gaming;*
4. *Music;*

There are many other types of NFTs' application, but these are the most widely used.

But how to create NFTs and to find potential audience? Here when marketplaces come on the floor (Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. 2022). There is a plenty of marketplaces, where NFTs can be bought, sold and created. All of them have different criteria, fees and contents. Here are some examples:

1. *OpenSea*
2. *Rarible*
3. *Nifty Gateway*

Marketplaces serve to create NFTs and facilitate all the possible transactions (Nadini et al., 2021). The number of marketplaces is growing every day and each of them gives various of opportunities. However, big brands are more eager to choose marketplaces with bigger market capitalization and larger number of participants.

2.1.2 Use of NFTs

What NFTs can be used for? There is an uncountable number of things tokens can serve for basically because they leave the place to creativity and allow to implement all the ideas into reality (Khalfallah, 2022). Except well-known collectable purpose there are some interesting ways they can be used:

1. *Advertising purpose;*
2. *Giveaways*
3. *Authentication control*
4. *To promote new launches*
5. *To create a complete virtual luxury market*
6. *Gaming industry flourishing*

However, if all these actions can be made in the system, which is called blockchain, I believe that before going deeper, it is important to say few words about it as well.

2.2 Blockchain

Blockchain technology is what NFTs are based on. It plays an essential role in the existence of tokens, being in some extent its DNA.

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An *asset* can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved (IBM Blockchain, 2022).

2.2.1 Blockchain platform types

There are different blockchain platforms, where NFTs can be created. Using different marketplaces, different types of blockchain can be chosen as well. The most popular platforms are: Ethereum, Solana and Polygon (Abrol, 2022).

2.3 Metaverse

The metaverse is a consistent convergence of our offline and online lives, bounded together in the virtual community where we can interact, work, play and communicate. It is still early in its advancement. There's no one virtual world but numerous universes, which are taking shape to empower individuals to develop and expand social communications through an immersive, three-dimensional layer (Moy & Gadgil, 2022).

People in the virtual world are represented with their avatars, through which they can communicate and interact. In metaverse to buy or sell items people use cryptocurrency or tokens. It is possible to create, buy or sell anything what just can be imagined. Metaverse is the base for utilization of the NFTs, as it gives huge number of possibilities for this tool.

2.4 Metaverse and NFTs as complementary concepts

NFTs are connoted as the necessary certificates for the recognition and attribution of ownership of any asset, an indispensable element for the construction of a metaverse that makes its peculiar feature private property. The metaverse, founded on the blockchain, consists of digital objects accompanied by NFT and organizes them according to its own rules and structures, in order to enhance their characteristics and peculiarities (Irem, 2022).

As it was already mentioned NFT is a great tool for artists and brands to monetise even more their works and products. Metaverses allow people to actually use those items, showcase digital forms of art and property (Binance Blog, 2022). With the usage of tokens, it is possible to actually have a value and the proof of ownership. Moreover, NFTs could become an excellent currency that can be used in meta worlds.

Talking about brands, metaverse, or virtual world, exists in parallel with the physical one, and it gives a great playground for extension of the existing way of doing business. Creating digital representations of the products, which doesn't involve spending huge amounts of money, they can sell it for more or less same prices, gaining more customers and new audience (Fonarov, 2022).

This possible experience translates into two different advantages for the user and for the brand, respectively summarized in the following points:

- the user has the opportunity to buy or try on "in virtual life" a garment or product, which could be out of their financial or other possibilities in real life;
- the company, on the other hand, acquires the opportunity to increase its profits by selling virtual products and clothes to an ever-wider audience.

2.4.1 Ways to leverage profits in the metaverse

There are a lot of different possibilities in the virtual world. Anything can be created there, and the more idea is original the more attention it will cause. Here I would like to show the most common ways of using NFTs in the metaverses:

1. *Virtual market;*
2. *Art galleries;*
3. *Games;*
4. *Real virtual estate;*
5. *Identity.*

Moreover, it is important to mention that each time token is resold on the marketplace to another person the creator gets a part of profit. So, as NFTs are the subjects of multiple transactions, creators can get some percentage of margin each time (Thune, 2022).

2.5 Examples of metaverses

According to report issued by Emergen Research (Emergen Research, 2022) the metaverse market will reach USD 1,607.12 Billion in 2030. There are some most used companies, which have the highest market capitalisation and which we will take a look at:

1. *Decentraland*⁶;
2. *The Sandbox*⁷;
3. *Roblox*⁸.

Summing all up, it is possible to conclude that NFTs, being based on the blockchain technology, first of all, can be a secure way to make different kinds of operations in the web and moreover can give companies and brands an access to a new virtual market. Usage of NFTs can facilitate the process of trade and give a sense of exclusivity for users.

⁶ Decentraland: <https://decentraland.org>

⁷ The Sandbox: <https://www.sandbox.game/en/>

⁸ Roblox: <https://www.roblox.com>

Chapter 3. Gucci case study and future of NFT

This chapter is dedicated to the Gucci case study, as this brand was one of the pioneers among the luxury companies, entering in the virtual world in the very beginning of the NFTs' craze, and it is continuing its active participation in metaverse, announcing new initiatives. Using its example, it is easier to understand different ways of tokens' application and following outcomes. Moreover, the interview with company's CMO was analyzed. Further in the chapter SWOT-analysis of the NFTs' applications was delivered and critical discussion on the future of tokens was made.

3.1 Gucci case study

Gucci was one of the pioneers to explore Web 3.0 opportunities and from March of 2021 it keeps going in this direction.

Beginning to analyse this case, it is curious to look at the interview of Robert Triefus, Gucci's Executive Vice President and Chief Marketing Officer, published in McKinsey report "The State of Fashion 2022" (RÖLKENS et al., 2022).

Robert Triefus explained that brand's actions in the digital space are not only about marketing, it is much more as they believe that metaverse will become a key for a revenue growth. There can be various objectives like branding, revenue share, it also can be combined all together, but the experience of Gucci shows that it really brings a great stream of profits (RÖLKENS et al., 2022).

Going even further he said that NFTs give "opportunities around authentication, providing an additional sense of authenticity and security to customers. Or around added value that comes with specific products, where there may be a narrative linked to it. Digital collectibles may inspire physical manifestations" (RÖLKENS et al., 2022).

In June 2021 Gucci launched its first NFT project, inspired by its Gucci Aria (Li, 2022). It used Christie's platform, becoming first luxury brand using it (MCDOWELL, 2022). The collection was called Gucci Aria NFT and it was a 4-minute-long film with an animation from Gucci Aria, being the latest fashion representation of the brand. Initially, the film was made in honour of the brand's 100th anniversary, demonstrating its legacy and making it an ideal foundation for the NFT creation (Li, 2022). NFTs were sold during the auction called "PROOF OF SOVEREIGNTY: A Curated NFT Sale by Lady PheOnix" with the initial price of \$20,000. The final price was \$25,000 and all the revenues were donated to charity fund UNICEF USA aimed to provide help in access to vaccines against COVID-19.

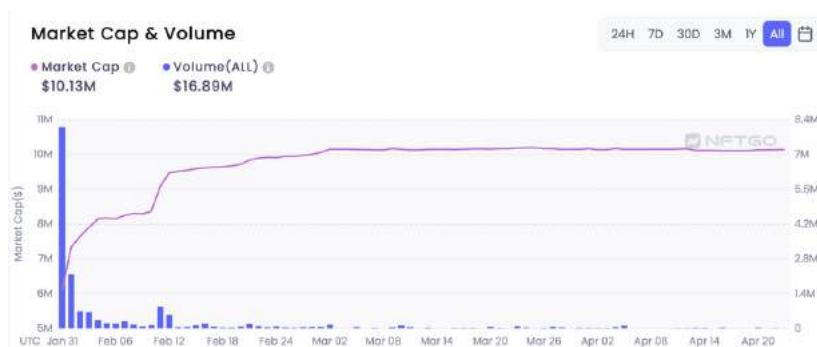
Next brand's experience in metaverse was the creation of Gucci Garden⁹ in May of 2021, based on Roblox. This is a virtual fashion installation, which was available for users for two weeks. It was considered to be an addition to the real installation, which took place in Florence and was called the Gucci Garden Archetypes (BARRY, 2022).

Visitors were allowed to purchase Gucci's limited-edition avatar items. For example, a during the exhibition, Gucci bag was sold for \$4,115, appearing to be more expensive than its physical version. As soon as it was announced that all the collectable items would be converted into limited items the interest in the event increased significantly. In total, \$3,575,000 was the revenue from the initial sales of collectible items ("Gucci Garden", 2022).

Second NFT drop, made by the brand in February 2022, was in collaboration with vinyl toymaker, which is famous for creation of animated celebrities and digital collectables, Superplastic and was called SUPERGUCCI¹⁰.

This is a three-part series of super limited NFT collection. Each series included 10 exclusive NFTs, each of which representing traditional Gucci patterns and coming with unique tall white ceramic sculpture SUPERGUCCI SuperJanky, handmade by Gucci's ceramicists (SILBERT, 2022).

Figure 4. SUPERGUCCI market capitalization and volume



Source: NFTGO

Moreover, in February Gucci has purchased a plot of land in the Sandbox metaverse, where it expanded their digital presence, creating an experimental concept store The Gucci Vault¹¹. Brand's creative director wanted to create their own virtual world, where all the items and collectibles, created by the company could be available (Ko, 2022).

The latest initiative made by Gucci, using its Vault meta space, was the collaboration with 10KTF, a virtual shop born a few months ago with the aim of creating existing NFT derivatives,

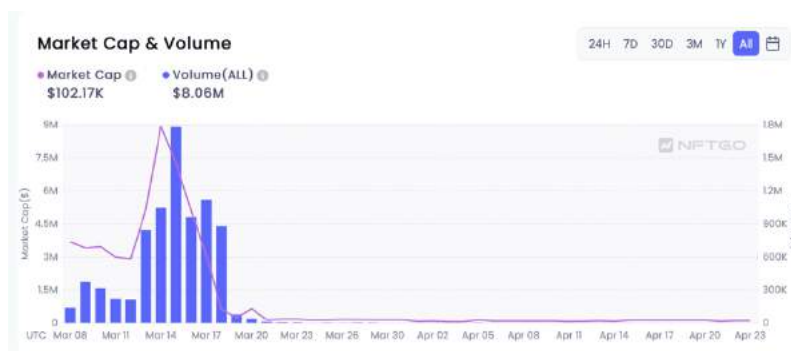
⁹ Gucci Garden: <https://guccigarden.gucci.com/#/en/>
¹⁰ SUPERGUCCI: <https://vault.gucci.com/en-US/story/supergucci>
¹¹ The Gucci Vault: <https://vault.gucci.com>

which is enjoying growing success (Faurote, 2022). Such prestigious collaboration should further increase its visibility in the web. The name of new project is “10KTF Gucci Grail”¹².

The idea is that there is a crystal ball left in place, representing a pass, which allowed people to participate in this initiative reserved for 5,000 lucky ones elected among the most loyal members of the Discord communities of Gucci Vault or 10KTF, as long as they have a PFP (Profile for Picture) or an NFT avatar, which represents its owner in the virtual world. To achieve this exclusive Gucci 'Grail', it was also necessary to hold this PFP within the dozen existing 10KTF compatible NFT projects, such as Bored Ape, World of Women or Cool Cats.

Once the precious pass was obtained, it was possible to personalize an NFT, choosing between two looks designed by Alessandro Michele, inspired by his recent collections for Gucci, “Aria” and “Love Parade”.

Figure 5. Gucci Grail market capitalization and volume



Source: NFTGO

According to the brand’s CEO Marco Bizzarri exploring the new virtual horizons is the 'Dream big' team, formed over a year and a half ago to explore new areas, as happened with Gucci's gaming strategy with platforms such as Roblox, Zepeto, Animal Crossing and Genies.

Gucci was one of the first movers in the sector of fashion in metaverse and it keeps creating various different projects to grow its presence. As it is possible to see, it is not only creating NFTs, but also providing users with special spaces, where buyers can utilize items and have other interesting experiences. Moreover, Gucci is constantly entering in collaborations with well-known metaverse artists in order to gain wider audience and be more visible. The brand is succeeding in creating its own community as it is becoming recognizable as a digital player.

Analysing the KERING annual report with performance results of the group it is not possible to see a particular part about revenues from the activity in the virtual space or from selling digital goods as for now it is not recognisable, however, Gucci’s revenue in 2021 has grown up 31%. As

¹² Gucci Grail: <https://vault.gucci.com/en-US/story/gucci-grail>

reported, recurring operating income in 2021 was 42% higher than in 2020. It was underlined that the brand in this period was implementing clienteling initiatives¹³.

Figure 6. Gucci's operating performance

Operating performance					
Revenue (in € millions)	2021	2020	Reported change	Comparable change ⁽¹⁾	2019
Total Luxury Houses	17,019.4	12,676.6	+34.3%	+34.9%	15,382.6
Gucci	9,730.9	7,440.6	+30.8%	+31.2%	9,628.4
Yves Saint Laurent	2,521.0	1,744.4	+44.5%	+45.6%	2,049.1
Bottega Veneta	1,502.8	1,210.3	+24.2%	+25.1%	1,167.6
Other Houses	3,264.7	2,281.3	+43.1%	+43.8%	2,537.5
Corporate and other	625.8	423.6	+47.7%	+43.0%	500.9
KERING	17,645.2	13,100.2	+34.7%	+35.2%	15,883.5

(1) Change on a comparable scope and exchange rate basis.

Recurring operating income (in millions of euros)				
	2021	2020	Change	2019
Total Luxury Houses	5,175.3	3,367.1	+53.7%	5,042.0
Gucci	3,714.6	2,614.5	+42.1%	3,946.9
Yves Saint Laurent	714.6	400.0	+78.7%	562.2
Bottega Veneta	286.5	172.0	+66.6%	215.2
Other Houses	459.6	180.6	+154.5%	317.7
Corporate and other	(158.1)	(231.9)	+31.8%	(263.7)
KERING	5,017.2	3,135.2	+60.0%	4,778.3

Source: KERING group report

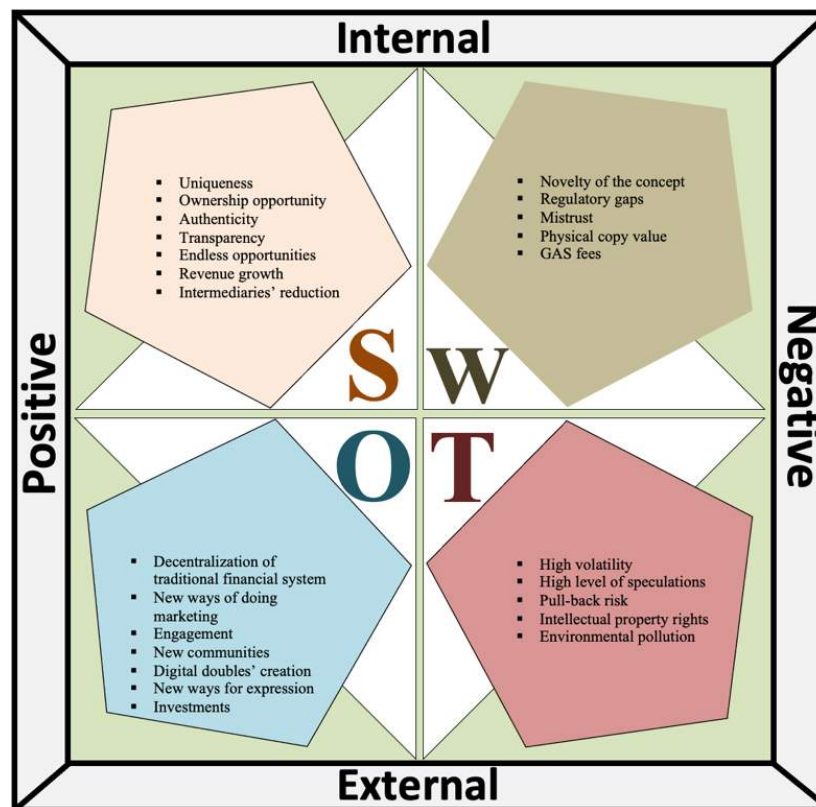
Gucci went even further and in May of 2022 has announced that company would start accepting cryptocurrency payments in their retail stores. In order to make a payment customers will use a link, received via mail, which will contain a QR code that will allow them to make a payment from crypto wallet.

3.2 SWOT-analysis

Considering all the aspects of the research made, in order to have an overall overview of the subject, the SWOT-analysis is needed. As every new business tool, NFTs' use has different aspects and even though it has many advantages there are several drawbacks, which are important to consider in order to better understand the opportunities and possible weaknesses.

Figure 7. SWOT-analysis

¹³ PRESS RELEASE: 2021 annual results. Kering.com. (2022). From https://www.kering.com/assets/front/documents/Kering_Press%20release_2021%20FY%20Results_17022022.pdf.



3.3 Future of NFTs

The pace with which NFTs are growing the importance in our nowadays life makes it crucial to study and understand the topic even more. Big companies and brands, entering in this market, show that this is not anymore a different gaming reality, which exists only for entertainment – with more and more great market players taking a part of the new digital economy, it is visible that changes are here and they will go only further. But why and what do companies search there? Why some of them still hesitate considering it as a risky gamble and other see it as a great new opportunity?

Using the SWOT analysis, it becomes clear, why some people remain sceptical about this tool: high market volatility, novelty of the concept, lack of regulations. But looking deeper, the opportunities, which it can provide, explain the raising interest and optimism among the brands.

As this concept is relatively new and it will keep developing in future many of the existing weaknesses would be solved with the raise of recognition and regulations. So, what is the future of NFTs for brands and how they can implement it? Here are some important aspects to look at:

- **Web 3.0:** The future of the internet is here – the new technological era is now at the emerging stage, but the pace of development is really high. Even though there are many concerns and unsolved issues now, after some period of time it will take a completely different shape. It is already visible how it can change an ordinary way of doing business, opening new opportunities and possibilities. Use of NFTs can solve many digital marketing problems, which

can occur in future: as the world is moving towards a cookie-less internet, it can be a great alternative for marketers in the way the target advertising is made. Moreover, it can be an easy and entertaining way for brands to explore and start operating in virtual reality.

- **Exclusivity:** As exclusivity is something what fashion brands' customers are looking for in most of the cases, NFTs can really become a tool of creating more unique items and products. Using this technology companies can leverage on the people's inner desire to be different from others.

- **Endless design opportunities:** Blockchain platforms and tools give artists and designers an endless playground to express themselves.

- **Sustainability:** Even though token minting requires a lot of energy, the pollution from creation of NFTs is 97% lower than the pollution from production of the physical goods.

- **Transparency:** Blockchain technology opens many possibilities to obtain transparency and demonstrate the authenticity of the product sold.

- **New communities:** Entering into the new market, with a great growth potential opens many different opportunities for brands to find new audiences.

- **Distance reduction:** With the elimination of intermediaries and the direct user to creator interactions, it is possible to create more user-centric approach to meet market's needs.

- **Higher revenues:** If nowadays companies are using intermediaries, in the near future the use of blockchain technology will eliminate the need of doing so. With lower costs of production, less interactions with third parties it is easier to generate profits. Moreover, NFTs, being created ones bring creators royalties during their whole period of existence: each time item is resold – the creator gets a part of revenue.

- **Metaverse constant growth:** With the constant growth of users enjoying opportunities provided by virtual worlds and spending billions of dollars on virtual goods, metaverses would become a perfect place for brands to sell their products and to leverage profits.

- **Storytelling:** NFTs are a great tool to capture and transmit the history of the brand. People appreciate things, which have a story behind, especially if they know that after some period of time it will become even more precious and unique.

Summing all up, it is possible to say that NFTs have a great potential to become one of the most important tools in the way businesses operate. Being at the emerging stage, tokens are characterized by certain characteristics that can cause concern to market participants. However, taking into account the speed of their development, it can be said that in the near future many problems, such as lack of regulation, will be resolved. Along with the further growth of the virtual market, new opportunities and horizons will open up, and the positive characteristics that tokens

already have will increase exponentially. It is safe to say that the use of NFT opens up new opportunities for companies to communicate with the audience and can allow them to build new ways of marketing and creating goods.

Given the pace of Internet development and the high likelihood of disabling cookies, this technology should attract the attention of marketers, since at this stage, using all available marketing tools, an ideal base can be prepared for future operations. NFTs and their components can become a new medium for creating advertising, finding a potential audience and a way to communicate online.

Of course, there are both pros and cons to being among the first to adopt this technology, but the positives far outweigh the negatives. Despite the fact that this market is still not stable and accurate forecasts about its development cannot be made, along with problems in accounting and other aspects of regulation, its first participants can already reap the benefits in the form of increased visibility, expansion of the client base and getting a wider range of tools for interacting with the audience. Moreover, while not yet filled, the first players in this market will be able to get a large share of it, while gaining experience and experimenting.

The NFTs do have great prospects for the future and there is a strong possibility that they will be even wider than we can imagine at the moment.

Conclusion

The world does not stand still and is rapidly developing in all the spheres of life. Being in the era of information technology, each subsequent shift is faster than the previous one. Gradually moving from the Web 2.0 to the Web 3.0, a number of other areas of life will change. Thanks to the blockchain, metaverses and NFTs, a new type of market is emerging - the digital market, which opens up a whole range of new opportunities for its participants. Now, just like in the tradition of the best science fiction movies, there is an opportunity to truly live two different lives - a real one and its digital representation. The possibilities of the second, digital version, are endless: any fantasies can be realized and any objects created. Brands can discover a new universe of opportunities, both in products and services. Moreover, the possibility of combining these two worlds can also increase the profitability of companies.

It might seem less real if major companies such as Meta, Google, Gucci, Louis Vuitton, Ferrari and many others have not begun to master these new horizons en masse.

The use of NFTs provides a wide range of instruments to develop and improve the way of doing business in the future. Undoubtedly, this is a unique tool that can change the world of marketing after the disappearance of cookies, but it can also improve the gamification of existing strategies and create new communities.

Fashion brands have already experimented in all the different spheres of NFTs' creation: customized characters in games, 3D galleries, virtual garments, in-game items, tributary videos as artwork and many others. All these initiatives resulted into positive reactions from the audience and profit growth for the companies.

If we talk about the digital economy, then thanks to blockchain technology, all transactions can take place transparently and safely, and tokens make it possible to firmly strengthen the possibility of real ownership of the purchased goods. Moreover, eliminating intermediaries, makes it easier for brands to communicate closely with their clients.

Obviously, all innovations have both positive and negative aspects. Being at an early stage of development, the digital market is subject to strong volatility and there is a high level of speculation. The system of real regulation and accounting is also absent at the moment. Many believe in the future of this technology, while others say that this is just a bubble that will burst after some time. It will be possible to understand how it will actually be only after a while, however, analyzing the activity and results of existing initiatives, it is possible to say that this is only the beginning and along with the further development of this tool, new opportunities will appear and most of the problems which cause concerns at this stage will be solved.

References

1. Abbasi, A. (2022). *Council Post: The Metaverse And NFTs: What Agencies And Brand Leaders Should Know*. Forbes. From <https://www.forbes.com/sites/forbesagencycouncil/2022/01/06/the-metaverse-and-nfts-what-agencies-and-brand-leaders-should-know/?sh=25f7c4304200>.
2. Abrol, A. (2022). *Solana Vs. Polygon Vs. Ethereum – The Ultimate Comparison* -. Blockchain-council.org. From <https://www.blockchain-council.org/blockchain/solana-vs-polygon-vs-ethereum/>.
3. *A Complex Commercial Litigation Law Firm in Coral Gables, Miami*. Kozyak Tropin & Throckmorton. (2022). Retrieved 8 May 2022, from <https://kttlaw.com>.
4. *Adidas: Metaverse*. Adidas. (2022). From <https://www.adidas.com/us/metaverse>.
5. Ante, L. (2021). The non-fungible token (NFT) market and its relationship with Bitcoin and Ethereum. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3861106>
6. *A virtual Gucci bag sold for over \$4,000 — more than the real deal*. Inputmag. (2022). From <https://www.inputmag.com/style/roblox-gucci-bag-handbag-purse-digital-virtual-nft-sold-4000>.
7. BARRY, C. (2022). *Gucci digitally outfits Gen-Z in metaverse foray with Roblox*. AP NEWS. From <https://apnews.com/article/gucci-roblox-76339d10f139e9b0d39761bd8426c11e>.
8. Balis, J. (2022). “How Brands Can Enter The Metaverse”, Harvard Business Review, <https://hbr.org/2022/01/how-brands-can-enter-the-metaverse>
9. Ball, M. (2022), “*The metaverse: and how it will revolutionize everything*”, Liveright Publishing Corporation, from www.matthewball.vc/all/forwardtothemetaverseprimer
10. Bingol, V. (2022). *Gucci Case Study: How NFTs are Revolutionizing the Fashion Industry*. 440industries.com. From <https://440industries.com/gucci-case-study-how-nfts-are-revolutionizing-the-fashion-industry/>.
11. *Bizzarri: “Con Gucci investiamo nel metaverso”*. Pambianconews notizie e aggiornamenti moda, lusso e made in Italy. (2022). From <https://www.pambianconews.com/2022/03/29/bizzarri-gucci-accelera-investimenti-nel-metaverso-342849/>.
12. Bloomberg, ‘NFT Market Surpassed \$40 Billion in 2021, New Estimate Shows.’ From <https://www.bloomberg.com/news/articles/2022-01-06/nft-market-surpassed-40-billion-in-2021-new-estimate-shows>.
13. *BOSS x Russell Athletic NFT | BOSS Inspiration | HUGO BOSS*. Hugoboss.com. (2022). From <https://www.hugoboss.com/boss-russell-athletic-nft/>.

14. Bourcart, C. (2021). *How Brands Can Benefit From Non-Fungible Tokens (NFTs)*. Medium. From <https://bettermarketing.pub/how-brands-can-benefit-from-non-fungible-tokens-nfts-dc38500a1c26>.
15. Brown, D. (2021). *Big Tech Wants to Build the 'Metaverse.' What on Earth Does That Mean? "*. From <https://www.washingtonpost.com/technology/2021/08/30/what-is-the-metaverse/>.
16. *BURBERRY-DROPS-NFT-COLLECTION-IN-MYTHICAL-GAMES'-BLANKOS-BLOCK-PARTY*. burberry Corporate Website. (2022). From <https://www.burberryplc.com/en/news/brand/2021/Blankos.html>.
17. Buyer, L. (2021). *A Marketer's Guide To NFTs And The Metaverse*. Search Engine Journal. From <https://www.searchenginejournal.com/nfts-metaverse-marketing-guide/427528/#close>.
18. Calandra, C. & Chiu, E. (2021). *Into the Metaverse*. Wunderman Thompson Intelligence.
19. *CHITO x GIVENCHY NFT*. nft.givenchy.com. (2022). From <https://nft.givenchy.com>.
20. *Clinique: NFT*. (2022). From <https://www.clinique.com/nft>.
21. Companies Market Cap. (2022). "Largest Companies By Market Cap", Global Ranking, <https://companiesmarketcap.com/>.
22. *Collezione Genesi NFT di Dolce&Gabbana..* Aviontourism.com. (2022). From <https://www.aviontourism.com/it/luxury/lifestyle/shopping/la-collezione-genesi-nft-di-dolce-gabbana-42409>.
23. CURETON, D. (2022). *Barbados To Open World-First Metaverse Embassy - XR Today*. XR Today. From <https://www.xrtoday.com/virtual-reality/barbados-to-open-world-first-metaverse-embassy/>.
24. Dalton, J., & Gillham, J. (2022). *Seeing is believing: How virtual reality and augmented reality are transforming business and the economy*. From <https://www.pwc.com/gx/en/technology/publications/assets/how-virtual-reality-and-augmented-reality.pdf>.
25. Emergen Research. (2022). *Metaverse Market Share | Metaverse Industry Forecast 2021-2030*. Emergenresearch.com. From <https://www.emergenresearch.com/industry-report/metaverse-market>.
26. Farrington, R. (2022). *Why Big Brands Are Spending Millions On NFTs*. Forbes. From <https://www.forbes.com/sites/robertfarrington/2021/12/25/why-big-brands-are-spending-millions-on-nfts/?sh=104a410c6117>.
27. Faurote, A. (2022). *Introducing 10KTF Gucci Grail: Gucci's Latest Vault Project Dedicated To NFTs*. Hauteliving.com. From <https://hauteliving.com/2022/03/10ktf-gucci-grail/710334/>.

28. Fonarov, O. (2022). *Council Post: What Is The Role Of NFTs In The Metaverse?*. Forbes. From <https://www.forbes.com/sites/forbestechcouncil/2022/03/11/what-is-the-role-of-nfts-in-the-metaverse/?sh=3c849bb46bb8>.
29. Grider, D. (2021). "The Metaverse: Web 3.0 Virtual Cloud Economies". Grayscale Research, From https://grayscale.com/wpcontent/uploads/2021/11/Grayscale_Metaverse_Report_Nov2021.pdf
30. *Gucci Garden*. Roblox Wiki. (2022). From https://roblox.fandom.com/wiki/Gucci_Garden.
31. *Gucci Garden*. (2022). From <https://guccigarden.gucci.com/#/en/>.
32. *Gucci Launches First NFT, a Film Inspired by Recent Aria Collection*. HYPEBEAST. (2022). From <https://hypebeast.com/2021/5/gucci-nft-debut-film-aria-collection-inspired-announcement>.
33. Gummer, M. (2022), "*What opportunities does the metaverse hold for luxury brands in 2022*". From <https://jingdaily.com/metaverse-2022-china-5g-baidu/>
34. Hackl, C., Lueth, D., Di Bartolo, T., Arkontaky, J., & Siu, Y. (2022). *Navigating the Metaverse*. John Wiley & Sons, Incorporated.
35. Hendaoui, A., Limayem, M., & Thompson, C. W. (2008). "3D social virtual worlds: research issues and challenges". IEEE internet computing, 12(1), 88-92.
36. *High Digital Fashion Drops into Fortnite with Balenciaga*. Epic Games' Fortnite. (2022). From <https://www.epicgames.com/fortnite/en-US/news/high-digital-fashion-drops-into-fortnite-with-balenciaga>.
37. Hootsuite. (2021). Digital 2021 Global Overview Report, From <https://wearesocial.cn.s3.cn-north-1.amazonaws.com.cn/common/digital2021/digital-2021-global.pdf>
38. İLDAŞ, G. (2022). *METAVVERSE 101 UNDER THE THEORY OF DIFFUSION OF INNOVATIONS* [Ebook] (pp. 443-473). Iksad Publications. From https://www.researchgate.net/profile/Goerkem-Ildas/publication/359711328_METAVVERSE_101_UNDER_THE_THEORY_OF_DIFFUSION_OF_INNOVATIONS/links/624ab2385e2f8c7a03589ea5/METAVVERSE-101-UNDER-THE-THEORY-OF-DIFFUSION-OF-INNOVATIONS.pdf.
39. *Infographic: The Luxury Brands Selling Luxury NFTs*. Statista Infographics. (2022). From <https://www.statista.com/chart/26869/luxury-fashion-nfts/>.
40. Irem, B. (2022). *The Relationship Between NFTs and Metaverse - NFT Horizon*. NFT Horizon. From <https://nfthorizon.io/the-relationship-between-nfts-and-metaverse/>.
41. *Jimmy Choo: NFT*. (2022). From https://row.jimmychoo.com/it_IT/eric-haze-poggy-nft.html.
42. Johnston, L. (2021), "*Nike's next metaverse move is RTFKT pickup*". from <https://consumergoods.com/nikes-next-metaverse-move-rtfkt-pickup>

43. Kim, J. (2021). "Advertising in the Metaverse: Research Agenda", *Journal Of Interactive Advertising*, 21(3), 141–144.
44. Khalfallah, B. (2022). *NFTs: How Brands Use Them as a Marketing Tool*. Medium. From <https://medium.com/join-implement/nfts-how-brands-use-them-as-a-marketing-tool-35055c0a7436>
45. Knauff, J. (2022). *Technology That Will Revolutionize the Way You Think About Search*. *Search Engine Journal*. From <https://www.searchenginejournal.com/search-engine-technology/256223/#close>.
46. KOGAN, C. (2021). *Metaverse opens the gateway for luxury NFTs to become a multi-billion market*. From <https://cointelegraph.com/news/metaverse-opens-the-gateway-for-luxury-nfts-to-become-a-multi-billion-market>.
47. Ko, E. (2022). *Gucci Opens 'Vault', A Concept Store In Metaverse That Sells 'Supergucci' NFTs - DesignTAXI.com*. Designtaxi.com. From <https://designtaxi.com/news/417437/Gucci-Opens-Vault-A-Concept-Store-In-Metaverse-That-Sells-Supergucci-NFTs/>.
48. Lee, A. (2021). "With the Metaverse hype cycle at full blast, experts take the long view", *DigiDay*. From <https://digiday.com/marketing/with-the-metaverse-hypecycle-at-full-blast-experts-take-the-long-view/>.
49. Lee, A., Trimi, S., Byun, W. K., & Kang, M. (2011). Innovation and imitation effects in Metaverse service adoption. *Service Business*, 5(2), 155-172.
50. Li, J. (2022). *Gucci Launches First NFT, a Film Inspired by Recent Aria Collection*. *HYPEBEAST*. From <https://hypebeast.com/2021/5/gucci-nft-debut-film-aria-collection-inspired-announcement>.
51. *Lindsey McInerney on LinkedIn: How Marketers Plan to Conquer the Metaverse*. *Linkedin.com*. (2022). From <https://www.linkedin.com/feed/update/urn:li:activity:6836731787553730560/>.
52. *Louis Vuitton Launches NFT Game 200-Year Anniversary Celebration*. *Highsnobiety*. (2022). From <https://www.highsnobiety.com/p/louis-vuitton-nft-game/>.
53. *Luxury NFTs could become a \$56 billion market by 2030 and could see 'dramatically' increased demand thanks to the metaverse, Morgan Stanley says*. *Markets Insider*. (2022). From <https://markets.businessinsider.com/news/currencies/luxury-nfts-metaverse-56-billion-market-revenue-2030-morgan-stanley-2021-11>.
54. *Making sense of bitcoin, cryptocurrency and blockchain*. *PwC*. (2022). From <https://www.pwc.com/us/en/industries/financial-services/fintech/bitcoin-blockchain-cryptocurrency.html>.

55. Marketing Dive, October 2021. 'Verizon showcases 5G with metaverse treasure hunt.' From: <https://www.marketingdive.com/news/verizon-showcases-5g-with-metaverse-treasure-hunt/607746/>.
56. MCDOWELL, M. (2022). *Inside Gucci and Roblox's new virtual world*. Vogue Business. From <https://www.voguebusiness.com/technology/inside-gucci-and-roblox-new-virtual-world>.
57. MCDOWELL, M. (2022). *The Vogue Business NFT Tracker*. Vogue Business. From <https://www.voguebusiness.com/technology/the-vogue-business-nft-tracker>.
58. McKinsey. (2020). "How COVID-19 has pushed companies over the technology tipping point—and transformed business forever", McKinsey&Company, October 5 in 2020 Survey, <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-haspushed-companies-over-the-technology-tipping-point-and-transformedbusiness-forever>
59. Mersch, M. & Muirhead, R. (2019). "What Is Web 3.0 & Why It Matters", Fabric Ventures.
60. Meta, (2021). "Introducing Meta", YouTube, https://www.youtube.com/watch?v=pjNI9K1D_xo
61. *Metaverse and NFT marketing: Are you future-proofing your brand? | Partner Content | Campaign Asia. Campaign Asia.* (2022). From <https://www.campaignasia.com/article/metaverse-and-nft-marketing-are-you-future-proofing-your-brand/475759>.
62. MOLETI, D. (2022). *Creare NFT: meglio il minting su Polygon, Ethereum o Solana?*. Trend Online. From <https://www.trend-online.com/bitcoin/creare-nft-ethereum-polygon-solana/>.
63. Moy, C., & Gadgil, A. (2022). *Opportunities in the metaverse: How businesses can explore the metaverse and navigate the hype vs. reality* [Ebook]. JPMorgan Chase. From <https://www.jpmorgan.com/content/dam/jpm/treasury-services/documents/opportunities-in-the-metaverse.pdf>.
64. Nadini, M., Alessandretti, L., Di Giacinto, F., Martino, M., Aiello, L., & Baronchelli, A. (2021). Mapping the NFT revolution: market trends, trade networks, and visual features. *Scientific Reports*, 11(1). From <https://doi.org/10.1038/s41598-021-00053-8>
65. Nast, C. (2022). *Clinique's first NFT ties to loyalty and products as uses expand*. Vogue Business. From <https://www.voguebusiness.com/technology/cliniques-first-nft-ties-to-loyalty-and-products-as-uses-expand>.
66. Nast, C. (2022). *Louis Vuitton to release new NFTs*. Vogue Business. From <https://www.voguebusiness.com/technology/louis-vuitton-to-release-new-nfts>.
67. *NFT Analytics Platform*. NFTGO. (2022). From <https://nftgo.io>.

68. *NFT Lamborghini*. Nft.lamborghini.com. (2022). From <https://nft.lamborghini.com>.
69. *Non-fungible tokens: what's in store for 2022?*. Morgan Lewis (2022). From <https://www.morganlewis.com/-/media/files/publication/morgan-lewis-title/white-paper/2022/non-fungible-tokens-whats-in-store-for-2022.pdf>.
70. *NIKE, Inc. Acquires RTFKT*. Nike News. (2022). From <https://news.nike.com/news/nike-acquires-rtfkt>.
71. *Now, Gucci Will Accept Payments In Cryptocurrency*. NDTV.com. (2022). From <http://www.ndtv.com/business/now-gucci-will-accept-payments-in-cryptocurrency-2951543>.
72. PAULY, A. (2022). *Gucci Launches Vault, an Experimental Online Store*. Highsnobiety. From <https://www.highsnobiety.com/p/gucci-vault-store/>.
73. *PRESS RELEASE: 2021 annual results*. Kering.com. (2022). From https://www.kering.com/assets/front/documents/Kering_Press%20release_2021%20FY%20Results_17022022.pdf.
74. Puthussery, A. (2020). *Digital Marketing*. Google Books. From https://books.google.it/books?hl=ru&lr=&id=wFjTDwAAQBAJ&oi=fnd&pg=PT3&dq=digital+marketing+tools+paid+advertising&ots=qQYmD030OU&sig=qvnTBVNDSQGEZnzeYI ZRNR0q198&redir_esc=y#v=onepage&q=digital%20marketing%20tools%20paid%20advertising&f=false
75. Rodgers, S., & Thorson, E. (2000). The Interactive Advertising Model. *Journal Of Interactive Advertising*, 1(1), 41-60. From <https://doi.org/10.1080/15252019.2000.10722043>
76. *RTFKT*. Rtfkt.com. (2022). From <https://rtfkt.com>.
77. *RTFKT: Defining Art x Fashion in the Age of NFTs*. NFTS.WTF. (2022). From <https://nfts.wtf/rtfkt-defining-art-x-fashion-in-the-age-of-nfts/>.
78. RÖLKENS, F., YOUNG, R., BROWN, P., LE MERLE, L., CRUMP, H., & DARGAN, A. (2022). *The State of Fashion 2022*. McKinsey. From <https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/state%20of%20fashion/2022/the-state-of-fashion-2022.pdf>.
79. *Samsung Announces 2022 TVs With Integrated NFT Platform*. WeRSM - We are Social Media. (2022). From <https://wersm.com/samsung-2022-tv-lineup-with-integrated-nft-platform/>.
80. Schiffman, L.G. & Kanuk, L.L. (2004). *Consumer Behavior*. New Jersey: Prentice Hall
81. SILBERT, J. (2022). *SUPERGUCCI NFTs by Gucci & SUPERPLASTIC Release Date, Price*. Highsnobiety. From <https://www.highsnobiety.com/p/gucci-superplastic-supergucci-nft-collab/>.
82. Si, X., Jin, H., Sun, Y., Zhu, J., Zhu, L., Song, X., & Lu, Z. (2020). *Blockchain Technology and Application*. Springer Singapore, Imprint: Springer.

83. Stanchieri, M. (2021). *NFTs are marketing tools, not a products*. nss magazine. From <https://www.nssmag.com/en/fashion/27959/brands-are-wrong-about-nfts>.
84. Tapscott, A. (2021). *DIGITAL ASSET REVOLUTION: The Rise of DeFi and the Reinvention of Financial Services* [Ebook]. Blockchain Research Institute. From https://www.vcmx.ca/mrws/filedriver/TapscottAlex_DigitalAssetRevolution_BlockchainResearchInstitute.pdf.
85. Tas, G. (2022). *The Ultimate Guide for NFT Marketing Strategy*. Digital Agency Network. From <https://digitalagencynetwork.com/the-ultimate-guide-for-nft-marketing-strategy/>.
86. *The Top Metaverse Platforms in 2022 to Watch - XR Today*. XR Today. (2022). From <https://www.xrtoday.com/virtual-reality/the-top-metaverse-platforms-in-2022-to-watch/amp/>.
87. *The OECD Blockchain Primer*. OECD. (2020). From <https://www.oecd.org/finance/OECD-Blockchain-Primer.pdf>.
88. Thune, K. (2022). *How Do NFT Royalties Work?*. SeekingAlpha. Retrieved 8 May 2022, from <https://seekingalpha.com/article/4483346-nft-royalties>.
89. Tong, A. (2022). *Luxury fashion brands poised to join the NFT party*. Vogue Business. From https://www.voguebusiness.com/technology/luxury-fashion-brands-poised-to-join-the-nft-party?itm_source=manual_article_recommendation.
90. Twitter. (2022). From <https://twitter.com/rftktstudios/status/1381662618000187396?lang=en>.
91. *UNXD: Digital Luxury & Culture NFTs*. UNXD. (2022). From <https://unxd.com/drops/collezione-genesi>.
92. Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). *Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges*. arXiv.org. From <https://arxiv.org/abs/2105.07447>.
93. Webster, A. (2021). *You can now explore a surreal Gucci garden inside Roblox*. The Verge. From <https://www.theverge.com/2021/5/17/22440134/gucci-garden-roblox-experience-metaverse-date>.
94. *What is Blockchain Technology? - IBM Blockchain | IBM*. Ibm.com. (2022). From <https://www.ibm.com/topics/what-is-blockchain>.
95. *Why NFTs Are The Keys To Accessing The Metaverse | Binance Blog*. Binance Blog. (2022). From <https://www.binance.com/en/blog/nft/why-nfts-are-the-keys-to-accessing-the-metaverse-421499824684903085>.
96. Wilson, M. (2022). *2022 Outlook*. Advisor Morgan Stanley. From <https://advisor.morganstanley.com/the-brandywine-group/documents/field/b/br/brandywine-group/On%20the%20Markets%20January%202022.pdf>.

97. Wisdom, J., Chor, K., Hoagwood, K., & Horwitz, S. (2013). Innovation Adoption: A Review of Theories and Constructs. *Administration And Policy In Mental Health And Mental Health Services Research*, 41(4), 480-502. <https://doi.org/10.1007/s10488-013-0486-4>