

# **NFTs in luxury: trendy gimmick or future of the sector? Trends, roles and limitations in a digital updated universe**

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# **NFT in luxury: trendy gimmick or future of the sector?**

## **Trends, roles and limitations in a digital updated universe**

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**Abstract:** This work aims to reflect on non-fungible tokens (NFTs) within the luxury industry and to understand whether these represent a passing trend or a transformative force with the potential to truly shape the future of luxury. The latter is particularly recognized for its know-how, its exclusivity and its heritage, but also knows how to be reactive in the adoption of new innovative technologies. These indeed offer interesting opportunities to luxury brands in improving the customer experience and their brand value, and it is in this perspective that NFTs, these unique digital assets that are verified on blockchain technology. Therefore, through a review of existing literature, luxury industry reports, and case studies, the analysis focuses on the dynamics of NFTs as well as on their roles, limits and legitimacy in the context of luxury. What are the key attributes of NFTs and luxury? What parallels and/or dissonances can we draw between the two fields? These are all questions that will be examined through examples of NFT integration application in different luxury houses, which will allow to better understand consumer perceptions, market reactions and the motivations underlying this commitment on the part of luxury companies. This thesis also assesses the challenges,

difficulties and possible limitations that luxury brands may encounter when adopting these NFTs, ranging from the issue of security to that of sustainability. The results show that the integration of NFTs within the world of luxury is made up of both fashion elements and trends surfing on novelty and innovation, as well as evolutionary elements, even transformations, potential and promising for brands seeking to ensure their viability and ability to balance their core values and necessary technological innovation. NFTs offer new insights into ownership, and the notion of creativity in general, but they must also manage to remain consistent with the narrative and storytelling of luxury in order to have a truly lasting and truly interesting impact. Finally, this thesis hopes to contribute in turn to the current discourse on the question of the convergence of the world of luxury and technological innovation, and NFTs, in order to bring information to both luxury brands and other industry players, as well as academics wishing to understand these developments and implications. The luxury landscape is constantly adapting, and these NFTs may well lead to a redefinition of what it means to own, experience and enjoy luxury in the digital age.

*Thank you to the persons I met throughout my university career who have given it its originality through Literature and Management, of which I am very proud.*

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# **I. EXECUTIVE SUMMARY**

## **A. Topic and issues to be answered**

The topic of this thesis is *NFTs in luxury: trendy gimmick or future of the sector? Trends, roles and limitations in a digital updated universe.*

The issues to be answered will be, first, explaining NFTs: what are they and how does it work? How are they currently being used in the luxury sector? What makes them unique? Secondly, acknowledging the luxury sector, and how is it traditionally operated? How might NFTs disrupt it? How are its key players likely to consider NFTs? What are the potential benefits and risks? Then, analyzing the roles of stakeholders in the luxury sector in the adoption of NFTs, and how do they interact with NFTs. Next, exploring the current trends in the luxury sector: how NFT could affect them? What are NFT implications in the luxury sector? What are the trends of NFTs? What could they be in the future? Finally, pointing out NFT limitations in the luxury sector: What are they? What challenges integrating NFTs into the existing luxury ecosystem poses? How to overcome them? What are the potential risks? How to alleviate them?

Thus, leading to wondering if NFTs are really the future in the luxury sector or simply one more gimmick doomed to fade away at the next one?

## **B. The approach of literature**

By 2030, the luxury NFT market is estimated at 56 billion euros<sup>1</sup>. Indeed, NFTs have compelling benefits for the luxury sector that make it possible to answer several topics like exclusivity, rarity, scarcity or traceability. For example, the Maison Hennessy launched “Hennessy 8” which consists in a set of 250 high-end cognac bottles as physical products paralleled with their NFT “digital doubles”, the digital version of the bottle purchased physically, at the prize of 70,47 ETH (about 226.450 dollars)<sup>2</sup>. Offering new exclusive products is thus often an easy first step for a House to enter the world of NFTs. When it comes to addressing scarcity, Prada and Adidas collaborated for the “Adidas for Prada Re-Source”

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<sup>1</sup> *Morgan Stanley : Le marché des NFT de luxe pourrait peser 56M\$ d'ici 2030*, by Stanislas Pogorzelski, 2021  
<https://coins.fr/morgan-stanley-marche-nft-luxe-peser-56m-2030/>

<sup>2</sup> *Cognac : Hennessy se lance sur le marché des NFTs*, by Journal du Luxe, 2022  
<https://journalduluxe.fr/fr/lifestyle/hennessy-8-nft-blockbar>

collection of 3,000 NFTs created by the digital artist Zach Lieberman<sup>3</sup>. The artistic aspect contributes to their success, as well as their uniqueness. Another example is Givenchy Parfums which launched the “Pride” collection in collaboration with collectives of the “digital artists” Rewind Gallery and Amar Singh Gallery. They donated the entire funds of the 1,952 NFTs collection to the MAG Jeunes association that support actions for young people from LGBTQIA+ communities<sup>4</sup>. This NFT initiative was thus a way of supporting a project affirming and reaffirming the values of the brand. Another Maison, Balenciaga imagined its “To the Moon” Collection launched for the start of the school year, giving access to a concert in the Metaverse via Animal Concerts<sup>5</sup>. Accessibility and exclusivity are thus deeply linked when it comes to luxury and NFTs. When NFT holders have access to events through their acquisition of unique products, NFTs are more a key to an exclusive brand experience, than an asset, and target a different audience: the loyal "Brand-Lovers" and the VIPs.

Thus, the luxury sector by thinking about NFTs projects is looking for new ways of communication, new ways of self-expression, and answer in the meantime the need of evolution and innovation to meet different objectives. Blockchain helps to protect value, NFTs to create value, and the Metaverse to magnify value. However, as it is a new development, luxury houses need to test and learn by doing, in order to properly understand it and implement it correctly. New challenges are to come, and improvements are necessary, but luxury Houses are already going to more integration into the universes of NFTs and metaverse.

### **C. Objective of the study**

Following the literature review, focused on current trends in the role of NFTs in the luxury sector, a tension emerges: is the use of these NFTs a trendy gimmick or truly the future of the luxury sector? This is what will guide the reflection throughout the work.

Our objective is to analyze and evaluate the impact of NFTs on the luxury sector by considering their current trends, roles and limits in the context of the current digital world. Our interest is therefore particularly focused on what NFTs are and how they currently operate in the luxury industry: current trends in their use, their roles, how they differ from traditional luxury goods?

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<sup>3</sup> Prada, 2022

<https://www.prada.com/fr/fr/pradasphere/special-projects/2022/adidas-for-prada-re-nylon.html>

<sup>4</sup> *Givenchy Parfums lance sa Beauty Pride Gallery*, by Journal du Luxe, 2023

<https://journalduluxe.fr/fr/beaute/givenchy-parfums-beauty-pride-gallery>

<sup>5</sup> Edixion, 2022

<https://artconsulting.net/edixion/balenciaga-to-the-moon/>



Moreover, our desire is to explain why they also have limitations, and whether it may be possible to overcome them.

This thesis thus aims to provide an in-depth analysis of the subject, drawing on the relevant literature as well as on case studies in order to develop the reflection. It also seeks to contribute to existing knowledge about NFTs and the luxury sector.

## **D. Method and results**

### **a. Method**

I chose to opt for a qualitative approach, an approach that seems the most appropriate since it involves carrying out descriptive and exploratory work on the phenomenon of NFTs in the luxury sector. The nine case studies used allowed me to draw important and relevant information and data on the key players of this universe, whether they are luxury houses, NFT creators and artists or even collectors. The analysis then carried out is thematic and based on the information, concepts and theories drawn from different fields such as marketing, blockchain technology, economics. The limits of this work will finally be mentioned at the end of this work, because it is also a question of being critical and not forgetting to question the possible biases of research and the hypotheses proposed. To conclude, this thesis aims to provide a reflection and methodological work sufficiently complete, serious and rigorous about NFTs and their implementation in the luxury sector, while of course keeping in mind the possible boundaries.

### **b. Analysis**

After reflecting on several case studies, we arrive at the following results. The development of NFTs in the luxury industry depends on political, economic, social, environmental, legal and technological factors influencing their integration into this universe.

The driving forces behind this integration encompasses a reflect on the concept of the User Economy in the Metaverse and its implications at the consumer level and withing the realm of blockchain and digital assets. It examines how we can be proactive into the ownership, creation and trading of digital assets through NFTs, helping to reshape the more traditional luxury consumption patterns. It leads us to reflect on the shopping behaviors of the Gen Z and how they can be apprehended under two sub-groups: the Gen Me and the Gen We.

Then, some insights about the future of NFTs in the luxury industry emerge. First, the trends NFTs follow when it comes to luxury, as well as their roles that encompass authenticity and transparency, exclusivity, communities-building and new frontiers. It is essential to mention the limits, vulnerabilities, uncertainties and regulatory issues that NFTs also encounter. It is mainly about security issue, infringement and accessibility, but the question of the value and of the bubble economy is also worth considering, as well as the environmental and legal issues. Finally, we mention the governance that comes out of it, and finish with the promises and the predicting outcomes that NFTs pose to conclude that they are not just a trendy gimmick doomed to disappear, but a true opportunity to take full advantage of, to find ways to make coexisting and complementing the virtual and the real with each other.

### c. Managerial implications

Managerial implications could help luxury Houses in the decision-making processes regarding NFTs' integration into the business strategies depending on their unique identity, customer base, industry landscape... For example, luxury brands could start by assessing the alignment between their brand identity and the concept of NFT before investing in it. They must have a comprehensive understanding of the target's preferences and expectations for digital ownership and exclusivity. Another issue is that luxury brands must maintain the authenticity and heritage of their products while successfully adopting these innovative technologies. This balance is necessary to ensure that the integration of NFTs enhances the brand's value proposition rather than diluting it. Educating consumers on the concept of NFTs and digital property is also critical to bridge the knowledge gap and build trust among consumers who are not all familiar with this technology. Moreover, it is mandatory to consider the environmental impact of NFTs in terms of energy consumption and carbon footprint, to align with growing consumer demand for sustainability in luxury goods. Collaborations with artists or other NFT platforms also facilitate the creation of unique and exclusive digital offers that resonate with the clientele of luxury Houses.

Furthermore, NFTs are a new way to engage customers and create immersive brand experiences, but luxury brands should also be aware of the potential risks associated with NFTs, such as counterfeiting, copyright infringement or other fraudulent schemes. Thus, risk management strategies and protective measures can protect brand reputation and maintain brand trust. On top of that, thoroughly assessing the long-term viability of integrating NFTs into offerings is also important and requires monitoring market trends, as well as consumer

sentiment and technology developments to ensure these initiatives are still relevant and useful. Ultimately, luxury Houses must prioritize the data security and privacy of their users when dealing with NFTs, through the implementation of data protection measures and transparent data usage policies, which ultimately builds consumer confidence in these digital property platforms.

## **E. Limitations**

The results of the nine case studies might not be as generalizable as we would like to the luxury sector since each case is unique with its own contextual circumstances. Additionally, because the studies cases are complex, establishing causal relationships and links can be difficult, as some factors may not have been considered in the study but yet could influence the results. Because they rely on qualitative data, performing certain types of quantitative analyzes and statistical tests was completely limited. Besides, the number of cases studied is limited to nine which affects the representativeness of the sample and does not capture all the diversity of NFTs nor provide enough data to fully develop or refine complex theoretical frameworks. It is also possible that I have brought biases and interpretations to the selection and analysis of these examples, perhaps affecting the objectivity and credibility of the results, although I have tried to remain as objective as possible and based on the information. Finally, since real-world contexts are dynamic and evolve, they can change over time and so the information gathered during this thesis that could be outdated or irrelevant as the context evolves, limiting the validation of results and reducing the robustness of the conclusions. However, while the case studies indeed have limitations, they still offer valuable and contextual insights and contribute to a deeper understanding of the NFT phenomenon and its applications to the luxury sector.

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## **II. INTRODUCTION**

### **A. Research context**

- a. How is luxury consumption manifesting in the recent evolutions of metaverse and NFTs

Customers buy expensive luxury goods not because they actually really need them but because they want to be part of the luxury's culture, tradition and distinctive history<sup>6</sup>. Today, the main consumer of luxury goods belongs to the "wealthy segment"<sup>7</sup> of the population, and luxury sales increase along with it, such as millennials and Gen Z, who are truly driving the changes the world of luxury is experiencing. These are characterized by new needs, consumption habits, and in particular a focus on the digital experience, as well as new obstacles linked to technological developments that affect the way of consuming luxury goods<sup>8</sup>. Indeed, in the luxury sector and industry, the competition is fierce and due to the changes in consumer expectations, it is necessary for companies to understand how to communicate with these luxury consumers in order to succeed in differentiating themselves.

The context of the COVID-19 pandemic has affected the whole world and forced the luxury market to adapt quickly to digitization, Web, current technological developments and the multiplicity of possible digital trends, in order to confirm its relevance for new consumers<sup>9</sup>. Of course, traditional experiences in physics are still essential, but we can already see that digital is also gaining more and more space, via the metaverse and NFTs, digital innovations developing a lot in the luxury and fashion sectors. Indeed, NFTs have many points in common with them and arouse the interest of young consumers, which is why they are increasingly used to connect them with brands, through innovative experiences for example, but also to increase the notoriety of a Maison and thus encourage future sales. NFTs, like luxury goods, offer consumers status, an opportunity to stand out, and a place in the brand community. Thus, it seems logical that the luxury industry is interested in them and implements them.

NFTs are important assets belonging to the cryptocurrency sector which are constantly growing, and which have already brought in about 10.7 billion dollars on different blockchains

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<sup>6</sup> Bian & Forsythe, 2012

<sup>7</sup> Fionda et al., 2009

<sup>8</sup> Duma et al., 2015

<sup>9</sup> McKinsey, 2021

during the third quarter of 2021<sup>10</sup>. So, for luxury companies as well as for artists, NFTs have a potential for marketing and sales that can bring in a lot of money. Moreover, they are constantly growing and being adopted by more and more companies, illustrating the current evolutions of the luxury industry, towards a sector increasingly defined by augmented reality and powered by digital assets. Rebecca Minkoff was among the first designers to present and launch her NFT collection during New York Fashion Week 2021<sup>11</sup>, before being followed by many other brands such as Gucci, Chanel, Prada, etc. Because of their endless possibilities of alternatives, NFTs are thus used by already well-established luxury brands that may have difficulty connecting with new customers in innovative and redesigned ways. Of course, they are not unanimous either and some companies and managers remain skeptical or even suspicious of the idea of virtual fashion.

### b. Research objective and questions

I am interested here in the opportunities that NFTs can offer to the luxury industry, and how they can benefit the sector and integrate into it. For this, I base myself on consumption concepts and consumer demands, on the metaverse and especially on examples of application cases focused on the NFT and luxury sectors. I was able to bring out some main questions that guide this work:

- Why do NFTs seem so popular in the luxury industry?
- How do they work and how are they used by the luxury Maisons?
- Who are the customers and NFT's users in the luxury sector?
- What are the implications, positive and negative, of NFTs on the sector?

### c. Significance of the study

The research context of this thesis focuses on the links between NFTs and the luxury industry in today's digital era, and whether, together, they can entirely reshape the future of the sector or not. Because it is a matter of great interest and in expansion, it is necessary to apprehend

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<sup>10</sup> Statista, 2023

<https://www.statista.com/statistics/1275815/nft-sales-on-multiple-blockchains/>

<sup>11</sup> Rebecca Minkoff, 2021

<https://www.rebeccaminkoff.com/en-fr/blogs/rebecca-minkoff-blog/nyfw-i-love-new-york-capsule-collection-backstage-pass>

correctly what NFTs are as well as the use has been of them, to better understand the environment they are currently evolving in.

In recent years, in a context of increasing digitalization and recurring technological advances, there has been a growing interest in the use of these NFTs in the luxury sector. These are new types of digital assets based on blockchain technology that serve to guarantee authenticity and ownership among other things. A so-called luxury product is of very high quality, rather refined and rare, and therefore expensive, and can refer to a good as well as a service or benefit, and it tends to be more and more complex<sup>12</sup>. Indeed, some brands imagine, for example, digital versions of their products to then sell them in the form of NFTs. The trend is progressing, and more and more Maisons are getting into it and developing it even further. Thus, it has also quickly raised questions about the role of NFTs in the luxury sector, as well as speculation, especially about if it is a fashionable gadget or truly the future of it.

Thus, this research context of the thesis involves exploring and analysing current trends in the use made of NFTs in the luxury sector. The appearance and development of NFT marketplaces, the different forms that NFTs take, their functions and uses, their trends and roles, are all interesting points to study. It is also important to look at how NFTs in the luxury sector can be used to improve brand loyalty, security, communities and customer engagement, for example. Finally, the research context also explores the limits of use in the luxury sector that can be made of them, encompassing both the possible risks of fraud and the need for technical expertise in order to implement such technologies.

## **B. Research structure**

After having developed the issues to be answered as well as the objectives of this work, and having laid the foundations of the research context, I wanted to structure my thesis in such a way as to present the subject of NFTs and the way in which they are approached. in and by the luxury sector. This consists of explaining what NFTs are and how they fit into luxury, but also their environment such as Web 3 and the metaverse but also their processes such as blockchain. I then specify the method that will be used, qualitative based on case applications. Finally, the results and the analysis drawn conclude this reflective work by exploring the environment and the timeline of what concerns NFTs in luxury, but also by drawing up the uncertainties and the

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<sup>12</sup>*What does luxury mean now?*, BBC, by Libby Banks, 2018  
<https://www.bbc.com/culture/article/20181210-what-does-luxury-mean-now>

strengths in order to understand if NFTs have indeed a future in the luxury sector. I will conclude this thesis with a discussion and implications.



### **III. LITERATURE REVIEW**

#### **A. The obsession with value**

##### **a. Luxury culture and digital culture: best enemies**

Luxury culture and digital culture have been two distinct and competing forces for decades. Luxury is more often associated with the upper classes, with people wishing to display their wealth and status through expensive and miscellaneous items, ranging from cars, jewellery, clothing, art... Digital culture, on the other hand, developed with technology, especially in recent years, involves several different activities such as the online distribution of video content, music, video games, social media platforms... These two cultures can thus seem to contradict each other on certain points. However, they can also coexist peacefully when used together effectively.

In order to best combine these two cultures of luxury and digital, it is necessary to understand how they interact with each other. Luxury provides premium products to consumers who are looking for quality products beyond what is available digitally. Digital offers convenience of access and cost savings to people of all budgets, thus being able to access luxury experiences without (too much) spending. By combining the two, people from different economic brackets can enjoy part of both worlds without one or the other completely dominating the other, which also allows to create a unique experience that adapts to the needs of each one.

It may therefore be interesting to take advantage of this synergy between the cultures of luxury and digital through customer engagement for example in order to bridge the gaps that exist, while maintaining their respective respectability and credibility. Marketing campaigns to target specific demographic groups, like the affluent millennials, or special promotions on certain channels like Instagram, are all ways to do this, and these collaborations can help businesses grow and develop new things by offering consumers more options.

##### **b. Enlarging and enhancing the value proposition**

Brands seek to broaden and enrich their value proposition by going beyond a simple product approach<sup>13</sup>. This firstly involves new customer groups, particularly with the emergence of Gen Alpha, "Crypto nerds" and gamers, but also new channels such as NFT trading platforms which offer new products and services to digital twins for example. We can represent in the form of a pyramid the improvement of this new value proposition<sup>14</sup>. It represents the deep aspirations that consumers try to answer by buying a certain kind of products, and thus others point of interest for brands that the one of price to bring value to their own consumers. At the top, we find the enlarged identity which develops thanks to the inspiration, the social impact, the identity and the self-expression. On the left side of the pyramid, we find the idea of absolute security with the emotional experience, as well as immediacy of access with the functional one. On the right side, we position the commitment extended by the ambitious emotions, as well as the commitment amplified by the excellence of the product. Finally, at the bottom of the pyramid, new avenues of investment and radical transparency both come through platforms.

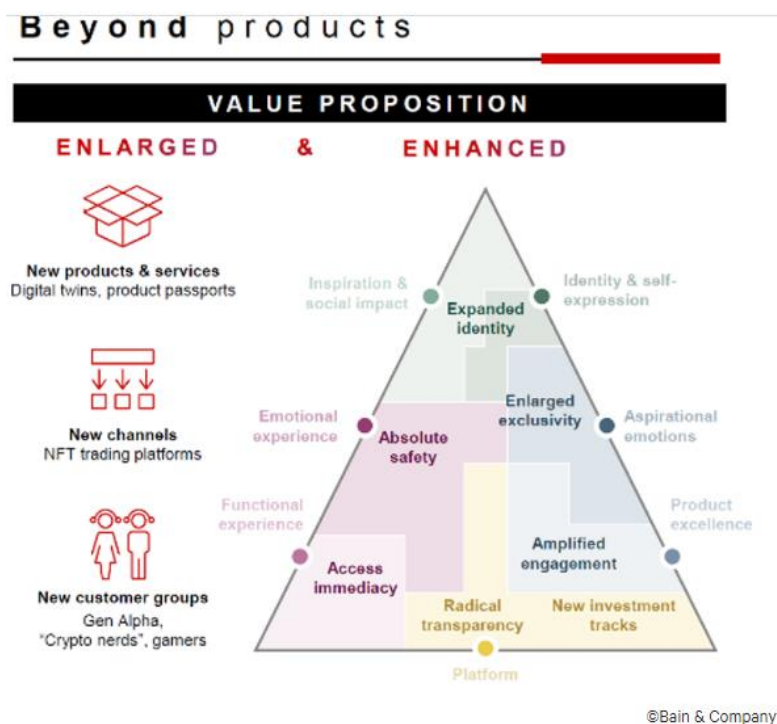


Figure 1: The Value Proposition. Source: <https://journalduluxe.fr/fr/business/interview-bain-joelle-de-montgolfier-marche-luxe>

<sup>13</sup> *Global luxury goods market accelerated after record 2022 and is set for further growth, despite slowing momentum on economic warning signs*, Bain and Company, 2023.

<https://www.bain.com/about/media-center/press-releases/2023/global-luxury-goods-market-accelerated-after-record-2022-and-is-set-for-further-growth--despite-slowing-momentum-on-economic-warning-signs/>

<sup>14</sup> *The Value Proposition*, Bain and Company, 2022

<https://journalduluxe.fr/fr/business/interview-bain-joelle-de-montgolfier-marche-luxe>

Luxury can go beyond the product to attract and keep consumers through experiences, sense of belonging, shared values or even promise of transmission for example. Luxury is also able to go beyond the tangible and physical product for the digital experience with its new products and services, new clients (Gen Alpha, gamers...) and new channels (NFT platforms, metaverse...).

## **B. Web3 timeline**

The web appeared in the 1990s when internet pages were linked by hypertext links. It then evolved in the 2000s towards a permanent connection of individuals around the world, through social networks such as Facebook, Twitter, or Instagram, as well as through online video platforms such as YouTube, blogs, etc., thus giving way to web 2.0. And the notion of “Web3” was first coined in 2014 by Polkadot founder and Ethereum co-founder Gavin Wood as a “decentralized blockchain-based online ecosystem.”<sup>15</sup> The concept has gained popularity in 2021 especially due to cryptocurrency enthusiasts and investors. Web 3.0 would represent the future of the current web 2.0, which will above all be marked by personalization, due to the storage and use of data. Some consider it just a marketing buzzword, while others think it's the new evolution of the web. From a technical point of view, the notions of 3.0 application or 3.0 solution are emerging and must already meet three main criteria:

- Independence: it must be possible to use it equally on any media, whether it is a type of screen, etc.
- Universality: it must not be under the influence of any operating system, be it a brand, a software or hardware manufacturer, for example.
- Accessibility: it must be available to all according to W3C directives and open to various databases.

## **C. Blockchain: protecting value**

### **a. Blockchain: essential Web3 architecture**

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<sup>15</sup> Ethereum, 2023  
<https://ethereum.org/fr/web3/>

The blockchain is "a technology for storing and transmitting information, transparent, secure, and operating without a central control body"<sup>16</sup>. It is a database, structured in blocks linked in lines, where each chain of blocks traces all exchanges and transactions between users (information, identity, action, agreement, contract, etc.), without intermediary, and where anyone can check the validity of the string. There are public blockchains which are therefore open to everyone, and which could be likened to a sort of anonymous, indestructible and tamper-proof accounting ledger to which everyone could freely access; and private blockchains whose access and use are limited to certain people. A transaction verified by the network and by each block in the network, joins other verified transactions and forms a new block of information stored on the blockchain. Thus, the entire database is shared across the network at the block level containing the transactions, and each node in the network creates and approves the transactions performed.

The blockchain as a network of distributed computer systems and a decentralized register of all transactions, allows the storage of NFTs. Indeed, non-fungible tokens, being distinct non-tradable digital assets, are validated and stored through this blockchain technology. The main objective is to capture and transmit digital information without modifying or manipulating it<sup>17</sup>. When a transaction is made on the platform, it is recorded and added to each participant's register. Each block in the chain therefore contains a specific number of transactions. This type of decentralized marketplace also eliminates middleman fees and commissions associated with traditional e-commerce stores, for example. This represents an attractive option for customers who want to buy luxury goods online. So, by extension, NFTs are increasingly questioned about how people interact with luxury goods online through digital marketplaces. They bring transparency to transactions, allowing buyers and sellers a sense of security when doing business online without physical contact.

Here is an illustration of Distributed Ledger Technology (DLT)<sup>18</sup>. Different participants organize this decentralized database, and information can only be added according to common rules. There are two types of platforms for distributed ledgers:

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<sup>16</sup> CNIL

<https://www.cnil.fr/fr/definition/blockchain>

<sup>17</sup> *La blockchain expliquée... en moins de 100 mots*, Deloitte, 2022

<https://www2.deloitte.com/ch/fr/pages/strategy-operations/articles/blockchain-explained.html>

<sup>18</sup> *Making sense of bitcoin, cryptocurrency and blockchain*, PWC, 2022

<https://www.pwc.com/us/en/industries/financial-services/fintech/bitcoin-blockchain-cryptocurrency.html>

- DL permissioned Platform / Blockchain, or otherwise known as “permission sandbox”: closed networks where individuals participate in data validation by registering and providing identification to the central authority to obtain authorization.
- DL permission-less Platform / Blockchain, often also referred to as “public platform”: an open network for anyone to participate in the blockchain without permission, allowing open source and full transparency of transactions.

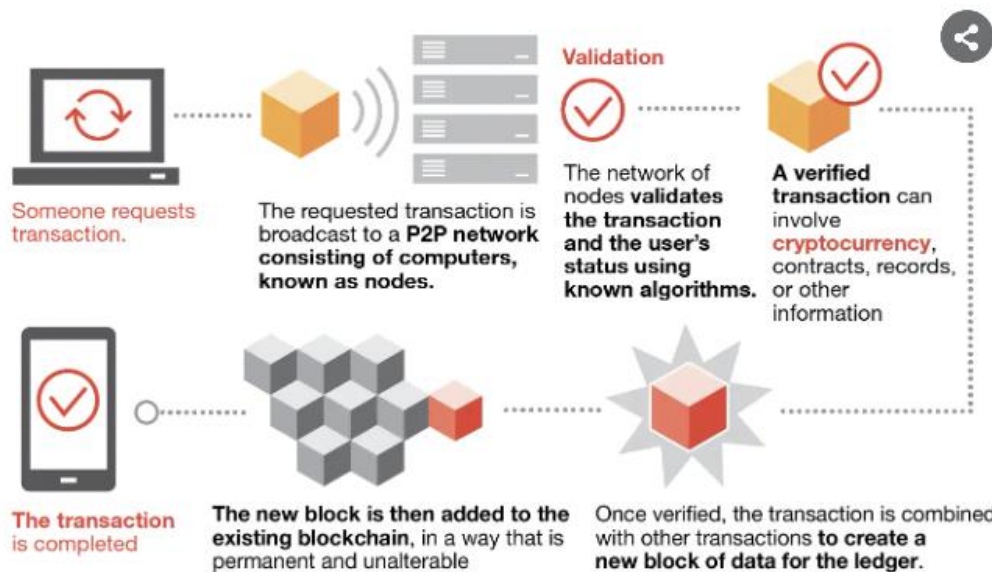


Figure 2: How blockchain works. Source: <https://www.pwc.com/us/en/industries/financial-services/fintech/bitcoin-blockchain-cryptocurrency.html#:~:text=A%20blockchain%20is%20a%20decentralized,voting%20and%20many%20other%20issues>

## b. Cryptocurrency

Cryptocurrency, or digital currency or tokens, such as Bitcoins or Ethereum, is used to purchase products and services through blockchain technology. Today, there are approximately 22,932 different cryptocurrencies in use around the world, with a market capitalization of approximately US\$1.1 trillion, with \$150 billion for Ethereum and \$325 billion for Bitcoin<sup>19</sup>. Their popularity is increasing especially for the security they offer. People can get rich as well as lose money using cryptocurrency, and speculators drive up the price of cryptocurrencies, especially Bitcoin. Many brands are thus beginning to take an interest in blockchain technology and accept it as a means of payment for their products and services. However, some remain

<sup>19</sup> *Different Types of Cryptocurrencies*, by Coryanne Hicks, Forbes, 2023  
<https://www.forbes.com/advisor/investing/cryptocurrency/different-types-of-cryptocurrencies/>

skeptical thinking that it is just a fad, and others point out its problems and drawbacks. For example, there is still no regulation of the too unstable and unpredictable cryptocurrency market.

Blockchain technology brings together different crypto currencies such as Ethereum launched in 2013. This brings together the capacities of a traditional blockchain but also the execution of computer code which allows developers to create interconnectable applications, and to produce tokens. representing a given digital asset by tracking their ownership and verifying their legitimacy: NFTs. Thus, to buy NFTs on its marketplaces, one must use cryptocurrency. NFT and crypto currencies are thus based on the same programming and use the same blockchain technology. But they are not the same thing. The first difference is that it is possible to exchange or exchange one cryptocurrency for another due to its equal value, which, on the other hand, is not the case with NFTs, non-fungible tokens. These are assets producing tokens, unique thanks to their digital signature, certifying ownership and rights over digital products, thus making it impossible to exchange them.

## **D. NFT: creating value**

### **a. What is an NFT and how does it work?**

#### *1. Definition*

A non-fungible token (NFT) is a digital asset or token that attaches ownership to distinctive physical or digital goods (in the form of artwork, music, virtual land, videos, video game, movies, name domain, etc.), via a license to use these assets that provides verifiable, public, non-transferable and unique proof of ownership and authenticity stored on the blockchain<sup>20</sup>. Tokens have distinct qualities and value and are therefore non-fungible: they cannot be replaced by another thing of the same nature, quality and quantity, and/or has a different use. And, even if they come from the same project or the same artist, an NFT is each time a unique asset. They can be downloaded, copied and transferred, but the original one linked to its proof of ownership is stored on the blockchain, therefore difficult to duplicate or subject to

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<sup>20</sup> *Que sont les NFT? Définition & guide complet pour débutant*, by Romaric Saint Aubert, Cryptonaute, 2021  
<https://cryptonaute.fr/nft/>

counterfeiting. It is thus possible to verify who is the owner and / or the original creator, thanks to the data history.

NFTs were born in 2013 with Colored Coins which made it possible to prove the belonging to lands or metals. They then developed and diversified over the years. In 2015, the game Spell of Genesis released its first cards on Bitcoin<sup>21</sup>. In 2016, The Gathering, Pokemon and Yu-Gi-Oh follow suit. Since 2020 with the Covid-19 pandemic, NFTs have accelerated with many companies and artists taking an interest in them such as luxury houses like Louis Vuitton, Valentino, Prada, among others. The majority of NFT projects are still rather artistic but some focus more on its usefulness and multiple possibilities. For example, they make it possible to update avatars in games on the metaverse, to share experiences, to buy objects and store them, to transfer funds in a secure way, etc.

## 2. *Types of NFT*

NFTs can come in a variety of forms and types which we can divide into three broad groups:

- Native digital NFTs: assets and property rights used to issue NFTs to various parties.
- Original work or copy produced using the blockchain platform.
- NFT Metadata grants the right to use it but not its ownership.

We find works of art as they are the most widespread and the most sought after. Technology and art combine to create a digital work. The most expensive NFT of all time, for example, was Beeple's digital collage "Everydays - The First 5000 Days" auctioned at Christie's for \$69.3 million in 2021<sup>22</sup>. Online collectibles are also common: for example, like the first application of NFT, the game CryptoKitties, where players buy, raise, collect and sell virtual cats on the Ethereum blockchain since 2017<sup>23</sup>. In 2018, one of the virtual cats is bought at 140,000 \$ at auction. Social media users are also particularly interested in memes, video games, through avatars, game pieces, game assets, privileges, etc., all things that it is possible to buy as players, and thus remunerate the creators of games. Crypto trading card games were in the first use cases of NFTs related to games with projects like Age of Chains or Rare Pepes in 2016. We

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<sup>21</sup> OpenSea, 2020

<https://opensea.io/collection/spells-of-genesis-cards>

<sup>22</sup> Christie's, 2021

<https://onlineonly.christies.com/s/beeple-first-5000-days/beeple-b-1981-1/112924>

<sup>23</sup> CryptoKitties

<https://www.cryptokitties.co/>

can also find event tickets: organizers create NFT-tickets and sell them via the blockchain, for football matches, concerts, festivals and others. A website, NFT.Kred, offers the ability to produce digital tokens and event tickets which, since tokens are non-fungible and cannot be replaced, also helps reduce the risk of resale<sup>24</sup>. Music is also developed through musical or multimedia files. For example, Rarible and Mintbase are two platforms adapted to this kind of NFT where it is possible to buy the NFTs of certain singers or musicians in exchange for a "VIP experience" (meetings, privileged information on upcoming dates, autographs ...). Finally, digital identity is a matter of interest. Thanks to its characteristics of non-fungibility, exclusivity and irreplaceability, it can be used as a digital passport linked to high-end or even luxury products, for example, to provide proof of ownership and authenticity. Breitling, for example, distributes digital passports for its products such as watches, accessible via an encrypted digital wallet or an electronic card, and easily transferable. NFTs could also help in the creation of a useful digital identity document for travel containing official private information.

The following graph illustrates volume sales for various categories of the most common NFTs, where we can see that collectibles are very much in front, followed by art, and in last place sports:

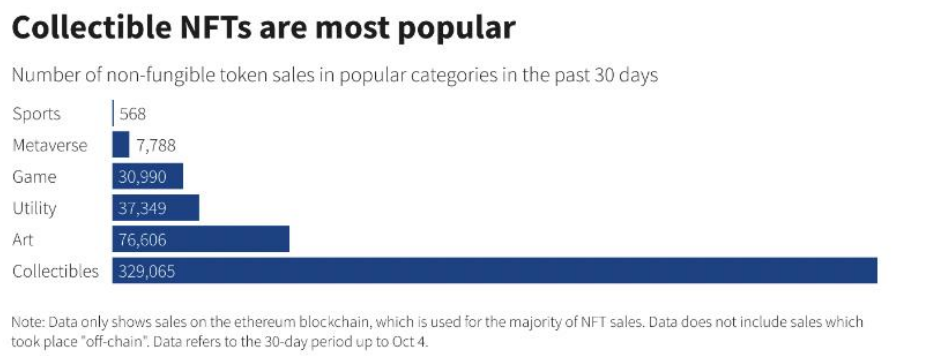


Figure 3: Sales of different categories of NFTs. Source: <https://www.reuters.com/article/fintech-nft-q3-idCAKBN2GU298>

### 3. Functioning

NFTs are linked to several different blockchains, but the Ethereum one is the most famous platform used to create and keep them, where it is also easy to review them as well as to follow

<sup>24</sup> NFT.Kred  
<https://www.nft.kred/>



the ownership of any digital data tracked through the blockchain as a digital ledger<sup>25</sup>. That is why we will take it as an example to illustrate the functioning of such NFT platform. NFTs depict both digital art (painting, video, gif, music...) and tangible objects (tickets, signatures, invoices...), and can only have one owner at a time. An NFT has a special ID with its own information preventing replication by other tokens:

- When someone mints, create an NFT, a code is run from a smart contract with specific criteria, which allow an update of the blockchain with this new information. So, when someone owns an NFT, it is easy to prove ownership. The original creator can choose to benefit from resale royalties, according to a certain percentage that he fixes in advance, at the time of the creation of its NFT.
- When someone buys an NFT, their ownership transfers to their wallet via the public address. A specific and unique identifier is associated with the NFT like a private key, proof of ownership. The NFT and the related information thus attest to the originality and authenticity of the digital file, and no one can manipulate it.
- However, it is still possible that the owner of the token is a fraudster. It could symbolize many digital assets, from artwork to game elements, or even live-streamed movies. According to the NFTs, the license and copyrights might also not be included in the purchase, in the same way that buying a limited-edition print does not give exclusive rights to the image.

The introduction of NFTs is transforming the way people traded and conducted transactions traditionally until today. From the creation of a work of art, its sale, its purchase, to the interaction with the general public... NFTs and the blockchain upset the codes, the ways of proceeding and mark a turning point in the paradigm and maybe in history.

#### *4. Value creator*

When considering NFTs and their future, it is essential to ask what their value is and how it is determined. It starts with understanding the exact value of an NFT as well as its evolution over time that extends beyond the tangible everyday objects, we are more familiar with. It is therefore the type of NFT used on a blockchain platform that sets its value. If an NFT is connected to a physical object, it determines its value, but if the asset is digital, the value

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<sup>25</sup> Ethereum  
<https://ethereum.org/fr/>

depends on the perspective of the buyer. It is therefore the dynamics of market supply and demand that determines its value.

The price of an NFT is speculative, being influenced by two main variables: the buyer's own willingness to pay and public opinion. The seller sets his price at the level he wants, and the buyer decides whether he is willing to pay that price. This is how some NFTs were able to reach record prices, exceeding all expectations, such as for example the first tweet of the CEO of Twitter from March 21, 2006, "just setting up my twttr"<sup>26</sup>. There were initially no rational criteria to decide a price and value, but when it was auctioned on March 6, 2021, Sina Estavi, CEO of Bridge Oracle, won it by spending 1630.58 Ethereum, or about \$2.5 million (at that given time)<sup>27</sup>. We quickly understand that the value of this tweet was determined by the amount of money he was willing to put in to acquire it, and it works, for any other NFT. However, certain more traditional criteria such as the artist's signature, the place of creation, autographs, etc., can also influence the value of an NFT. Thus, the value of an NFT cannot be predetermined and does not relate directly to its actual assets. It is therefore only the type of NFT and above all the price that one is ready to invest in that really matters, and demand and supply therefore also have a significant impact on NFT prices.

## 5. *Platforms of NFT*

It is possible to create, sell, buy or trade NFTs in different virtual markets such as the best known:

- OpenSea.io: Perhaps the most famous NFT marketplace and peer-to-peer platform where you can find a wide variety of collectibles, created in December 2017 in the United States<sup>28</sup>. All you must do is create an account to access NFTs. Renowned artists sell their works at auction on it like Beeple, Damien Hirst, Snoop Dog, Calvin Harris or even the Californian basketball franchise of the Golden State Warriors.

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<sup>26</sup> Twitter, 2006

<https://twitter.com/jack/status/20>

<sup>27</sup> *Twitter : Jack Dorsey vend son premier tweet une fortune*, Le Point, 2021

[https://www.lepoint.fr/high-tech-internet/twitter-jack-dorsey-vend-son-premier-tweet-une-fortune-22-03-2021-2418895\\_47.php#11](https://www.lepoint.fr/high-tech-internet/twitter-jack-dorsey-vend-son-premier-tweet-une-fortune-22-03-2021-2418895_47.php#11)

<sup>28</sup> OpenSea, <https://opensea.io/>

- Rarible: created in early 2020, a public platform that works in the same way and that takes advantage of RARI to notably reward its members. It now has over 400,000 NFTs and 1.6 million users<sup>29</sup>.
- SuperRare: a virtual market on which unique works can therefore be exchanged or sold. Created by John Crain in 2018, it uses the Ethereum blockchain and offers its own token called RARE. Currently, it drops 150 million RARE tokens to collectors and artists. It is thus the community that governs the platform<sup>30</sup>.
- Foundation: founded in 2020, it has offered exclusive digital artworks from well-known NFT artists, such as Kevin Rose, Pak, Jack Butcher, etc. To be able to use it, it is necessary to first must be invited by one of the other creators who are already users of this platform<sup>31</sup>. The artist must also buy gasoline in order to create his NFTs, which therefore involves a cost that can sometimes increase the value of his work.
- Nifty Gateway: an art-focused website that allows users to buy and sell collections. It is particularly used by well-known companies and especially sports personalities who use its "Nifties" as a reference to their collected objects. Founded in 2018, it was acquired by Gemini, an American cryptocurrency exchange, in 2019. The famous artist Beeple sold the video "CROSSROADS" at auction for approximately \$6.6 million on Nifty Gateway<sup>32</sup>. There are other well-known names such as Grimes, Trevor Jones or Calvin Harris.

## b. NFT and luxury: why are they made for each other?

### *1. NFT share the same values than luxury*

Luxury consumers buy these items at exorbitant prices because they want to be part of this luxury culture, its community, the heritage and the unique history of a brand. NFTs support this by allowing the buyer to have a special status. Through the blockchain, the values associated with NFTs are reminiscent of those that are also attributed to luxury products and their fundamental aspects that until now were difficult to dematerialize, such as: exclusivity, rarity, quality craftsmanship, ownership, uniqueness or the feeling of belonging. All come into play and translate when an NFT-based product offering is created, and by leveraging the

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<sup>29</sup> Rarible, <https://rarible.com/>

<sup>30</sup> SuperRare, <https://superrare.com/>

<sup>31</sup> Foundation, <https://foundation.app/>

<sup>32</sup> Nifty Gateway, <https://www.niftygateway.com/>

benefits of blockchain, brands and businesses ensure that each token is unique, securely backed up, and thus continues to be valued over time. On the buyer side, transactions being tracked, he knows exactly where his money is going, and benefits from the reliability and transparency that this space offers when buying an NFT, in the same way as a high-end item. of established businesses. Moreover, it is also customer relationship management that is transformed by the arrival of this new technology. Indeed, preferences can be traced via their NFT wallet (containing purchase information or areas of interest, for example). In addition, the NFT industry and the luxury industry share many similar aspects such as high prices, a clientele which remains small, a market promoting scarcity (CryptoPunks only exchanged 600 active wallets at its peak for example<sup>33</sup>), the non-fungible nature of unique creations, which also happens to be the meaning of NFT: non-fungible token. Overall, the field of application of NFTs to luxury is enormous and the Houses are just beginning to experiment with them. NFTs being able to create unrealistic things in real life, also open a whole new world of opportunities for the luxury industry, a sector that already likes to invent captivating stories, to tell their story through fantasies.

The non-fungibility of NFTs makes them comparable to one-off designer items, also justifying their potentially high selling price. In the luxury sector, scarcity is one of the key customer motivators on which the NFT market also depends. The value of NFTs, as seen above, is determined by its uniqueness and market demand which thus drives up the price. Logically, the value increases if less of this asset is found and more people wish to acquire it<sup>34</sup>. One of the motivations for buyers is the social value linked to the difficulty of obtaining a given product. The whole purpose of this thesis is based on the desire to analyse the success criteria of NFTs in the luxury industry, but also its difficulties in order to understand if they really represent the future of luxury or if they do not remain one trendy fad doomed to be replaced by another.

## *2. How to keep the luxury lustre when this technology keeps on growing*

Technology is changing rapidly, and so it can be difficult for luxury brands to maintain their brilliance in the face of ever-changing trends. Luxury products are often seen as timeless and exclusive, but this is becoming more and more difficult as new technologies enter the market

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<sup>33</sup> CryptoPunks, <https://cryptopunks.app/>

<sup>34</sup> Ballina et al, 2019

daily. To stay ahead of the game and keep customers engaged with their brand, a luxury company must embrace technological advancements while maintaining its core values.

One way for businesses to achieve this is to create a strong online presence. It makes it possible to reach potential customers and particularly the new generations. They should focus on delivering unique content that resonates with users and is relevant to their target audience. They should take advantage of emerging technologies such as virtual reality (VR), augmented reality, NFTs and metaverse experiences, allowing them to create immersive customer journeys tailored specifically for luxury buyers. For example, there is an issue regarding the fragmentation of the internet presence of the luxury apparel market<sup>35</sup>. Typically, there are several small markets selling luxury clothing, but no single market in the metaverse that could be home to producers. NFTs could thus be a solution by offering a specific market adapted to luxury companies, helping them to remain exclusive, current and connecting them to new generations, Generation Y and Z.

By taking advantage of modern technology while preserving what makes them unique compared to other competitors in their sector (quality materials, superior craftsmanship...), luxury brands will be able to remain competitive despite the growing technological landscape around us. Today. By focusing on innovative strategies both online and offline, these businesses will continue to be successful for many years to come, following current trends without sacrificing any part of what makes them special.

### *3. Rediscovering imaginary and creative boldness of luxury through NFT*

The emergence of NFTs has revolutionized the way luxury goods are consumed and experienced. For professionals in the luxury industry, this new technology offers an exciting opportunity to redefine how we think about luxury goods and services. NFTs allow for a greater degree of creative flexibility than traditional methods of production; they open possibilities for customizing products on demand according to individual preferences or tastes. This means that customers can create their own unique versions of a product without having to worry about cost overruns due to mass production costs associated with physical objects like jewellery or clothing lines. NFTs enable more inventive ways for brands to express themselves through

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<sup>35</sup> McKinsey & Co, 2022

interactive experiences (virtual fashion shows) that would otherwise not be possible with conventional manufacturing techniques alone. In addition, businesses should also focus on developing creative ways in which they can use NFTs within their product range. From virtual fashion shows featuring 3D models wearing customized clothing created using tokenized assets - enabling consumers around world access at any time - to interactive art installations powered by smart contracts where users gain access only if certain conditions are met (such as spending above a certain amount). NFTs offer unparalleled opportunities for those within the luxury industry who wish to explore uncharted realms creativity while also providing customers peace mind knowing they only receive genuine products every time.

NFTs, being one-of-a-kind items, offer this new level of luxury fashionable exclusivity and a new platform to operate on. NFTs can come from existing physical fashion items already on the market, as well as entirely created virtually. Moreover, the world of luxury has always collaborated with that of art. Inspiration drawn from works of art, collaborations with artists, creation of museums and exhibitions of luxury clothing... are all manifestations of it. Some even regard luxury creations as forms of works of art in themselves, as true collectibles, just as NFTs are. Luxury houses can thus create precious, rare and unique collector's items via these NFT platforms. It is true that physical products can be worn, are sensory accessible and thus seem more useful than NFTs, but it has also become very common to explore and share luxury items via virtual channels such as social networks for example<sup>36</sup>. Like these social media platforms, NFTs are not spatial-temporal limited, but one can access these products from anywhere in the world, show them to anyone anytime. Many Houses are already starting to offer models of what virtual NFT fashion could look like in the future through the possibility of wearing NFT items on your person in the metaverse for example. The digital format also allows unlimited creation, usually technically not feasible or difficult, and protected from any alteration from the effects of time, thus maintaining their relevance. In addition, NFTs modernize the brand image of established luxury Houses, sometimes perceived as too outdated, and respond to the changing demands of consumers and new generations whose self-expression joins the virtual, like the Gen Z and Y on which brands focus today<sup>37</sup>.

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<sup>36</sup> McKinsey, 2022

<sup>37</sup> Forbes, 2019; McKinsey, 2021 & 2022

Rebecca Minkoff is the first luxury fashion designer to create an NFT line, a 3D virtual gallery for the auction of real business merchandise, in August 2021 in association with Yahoo<sup>38</sup>. Customers could wear NFT products in the 3D gallery and share their photos on social media with a wide audience, elevating their status perception by helping them create a desired self-image, motivation to purchase luxury goods. Indeed, for today's affluent young consumers, Millennials and Gen Zers, the ability to share ownership of luxury items on virtual platforms, by posting a photo on social media, is sufficient reason for use and purchase. This hybridization also brings a form of solutions to companies facing certain challenges when producing tangible items. It eliminates the problems associated with the production and transport of the product (damage, practical problems...). Most resources previously needed are no longer spent and the value does not decrease since for an NFT item, it resides in its digital cache. The design and marketing processes are simplified (where to buy, how to bring it back, where to store it...). Conventional physical displays of originality and heritage combined with digitized methods of creating, selling and using items could thus be the future of the industry<sup>39</sup>, and there are many yet unrealized applications of NFT. The uniqueness, the market value, the creative freedom of the designer, all this is preserved. In addition, the authentication and traceability of possible NFTs are a solution for the Houses in the fight against counterfeits. Indeed, in the luxury resale sector, counterfeit product issues are more common than ever. But companies like LVMH or Prada, through the blockchain, intends to trace and authenticate luxury items from their own brands and other firms to prevent it. For example, the blockchain companies ConsenSys and Microsoft have partnered with LVMH to develop the technology Aura designed to give the whole luxury industry efficient product monitoring and tracing capabilities, where suppliers, producers, and designers can work together to combat counterfeiting by using individual cryptographic IDs, or "smart tags" tracking the movements of products<sup>40</sup>. Thanks to Aura's digital certificates, customers would also monitor sourcing and authenticity, increasing their confidence in the brand.

#### *4. Impacts*

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<sup>38</sup> Rebecca Minkoff, 2021

<https://www.rebeccaminkoff.com/blogs/rebecca-minkoff-blog/nyfw-i-love-new-york-capsule-collection-backstage-pass>

<sup>39</sup> McKinsey, 2022

<sup>40</sup> LVMH, 2021

<https://www.lvmh.com/news-documents/news/lvmh-partners-with-other-major-luxury-companies-on-aura-the-first-global-luxury-blockchain/>

What are the main impacts of NFTs? The current luxury customer is interested in their experience, involvement, development of their own brand community, in addition to the products themselves, which NFTs allow. NFTs allow companies to create considerable value for customers through privileged benefits (early access to limited edition collections, invitations to members-only events, virtual community gatherings, etc.). Brands can also expand their product offering beyond the usual tangible goods and offer interesting and useful services, such as live fashion shows, NFT promotion on social media, etc.<sup>41</sup>. For example, Prada and Adidas collaborated to develop an interactive community between consumers and businesses, through a campaign generating NFTs from user inputs, "Adidas for Prada Resource"<sup>42</sup>. A total of 3,000 fans are chosen to create and mint their own tokens, then combined into a composite NFT offered for auction to benefit a good cause. NFTs enable brands to strengthen connections and relationships with their target customers and foster the communities essential for luxury Maison to thrive.

From an economic point of view, NFTs represent enormous potential in the world of gaming. Players are entertained via crypto games but can also gain financially, which encourages them to participate. My Crypto Heroes, for example, has one of the highest returns on investment in the gaming industry, up to 20% per month<sup>43</sup>. NFTs also provide new opportunities for managing and marketing assets in digital ecosystems. They bring benefits to companies because goods are shared or exchanged between different partners in a joint process of value creation. Companies can jointly acquire a good through an NFT-based commercial marketplace. All companies with a stake in this asset can use it and avoids an intermediary who owns and is responsible for the asset. Thus, NFTs contribute to the creation of ecosystems of collaborative partners. Finally, the use of cryptocurrencies, necessary for the purchase of NFT, seems to be an ecological disaster by causing significant greenhouse gas emissions. The technology used to produce Bitcoins are indeed very powerful and truly energy-intensive, as well as to produce NFT.

## **E. Metaverse: magnifying value**

### **a. Creative playground for luxury**

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<sup>41</sup> McKinsey, 2022

<sup>42</sup> Adidas, 2022

<sup>43</sup> Coinbase, 2023

<https://www.coinbase.com/fr/price/my-crypto-heroes>



Many companies are embarking on the metaverse by developing various projects on the blockchain such as, for example, concerts, music albums, or even entire events, and the trend already well underway continues, with many artists, celebrities, companies like Louis Vuitton, Adidas, or McDonald's which continue to create and invest in it.

#### b. Metaverses: the influence of gaming

The gaming industry forms an important part of NFTs and attracts millions of people to virtual platforms known as metaverses, which continue to grow daily on the blockchain. It's about creating universes, NFT metaverses but also using the unlimited variety of NFT as game assets and objects (avatars, clothes, accessories...), NFT building blocks to create our own virtual realities, and many more to come.

#### c. Rethinking the customer experience

Creativity and interest in novelty and innovation have always been essential characteristics of the luxury business model. Its ability to integrate new technologies in line with its own requirements testifies to the great vitality and agility of this sector. This acceleration contributes to making luxury a pioneer in technological innovation, as it already is in creativity and non-technological innovation. Today, the luxury industry mainly uses these advances to rethink the customer experience, improve it, and push it even further. Providing privileged experiences to customers, attracting new generations, continuing to embody a position of pioneer and revolution are all ways to use it.

## **IV. EMPIRICAL RESEARCH AND METHODS**

### **A. Research framework and objectives**

Now, we try to answer the question we formulated in the introduction regarding the perspective of NFTs in the luxury sector, between a certain and inevitable future or a trend doomed to lose its fashion effect. First, we will begin by explaining in what this research consists of, then we will analyse the results we obtained in order to develop a discussion on the subject, and finally conclude on the possible limits of such a study.

The luxury NFT sector is still relatively new and innovative and thus continues to grow. Thus, it seems more appropriate to study the opportunities of the NFT and luxury market through different cases and on the conclusions drawn from NFT initiatives carried out by typical luxury companies. Indeed, using case studies as a research framework involves an in-depth exploration and analysis of specific real-world instances and examples allowing us to draw broader conclusions, generate insights, and contribute to the discussion.

### **B. Conceptualization of the research**

#### **a. Choice of study**

Since the goal of this dissertation is to better understand whether NFTs are the future of luxury, it is more interesting to decide on a qualitative study for the research method and on case studies. Indeed, it better analyse and understand the phenomena, behaviours, facts, and it allows to establish distinctions and links between the different concepts of NFTs and luxury via a certain theoretical lens<sup>44</sup>. With this qualitative research method, we investigate a quite complex phenomena within its natural contexts and provide detailed descriptions of each case, including its context, background, relevant events, and key actors, in order to understand the specificities of each case and the rationale and choices behind their selection.

Data collection is also necessary in order to identify attitudes and trend developments of NFTs and their application into the luxury sector. It is a work focusing on the existing notions around the NFT sector and how it is suitable for luxury, as well as on the different theories and data, verified and developed by practical research, and collected to be organized and

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<sup>44</sup> Jaakkola, 2020

contextualized<sup>45</sup>. Thus, my thesis is based on various and studied information to provide new knowledge and try to answer our questions.

### b. The data collection method

I have collected data from different and several existing theoretical works but also from the websites of NFT platforms, luxury House brands, and their publications on social networks. I have therefore selected nine case studies in order to gather enough relevant and important data that can lead me to the conclusion of the thesis, on established luxury brands that have integrated NFT projects into their activities. I can thus analyze these nine cases to shed light on the attitudes and behaviors of luxury Houses and their consumers regarding this new technology, after developing a general analysis framework.

### c. Case studies and analysis framework

The nine case studies I have chosen in order to better understand NFTs, their logic and their use in the luxury sector as well as the issues they can pose. This technology is developing rapidly, and many examples are identifiable, which is why I have only selected a limited number in order to answer certain questions that seem essential to me:

- What are the different forms NFTs are used by luxury houses, and what is their objectives?
- What are the strategies luxury brands implement regarding NFTs? Are they different from the traditional luxury practices usually used?
- Does the Houses target a specific demographic, consumer segment or audience?
- How NFTs perform for luxury houses? Can they leverage digital innovations and provide unique, memorable, and immersive interactions while maintaining their reputation and staying true to their values and heritage?
- What are the issues, and even the dangers, NFTs can pose for luxury houses, and especially when it comes to counterfeiting or security?

We were thus able to build this analysis framework, providing a few important elements that will be useful to draw the results:

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<sup>45</sup> Hirsheim, 2008

- Background and goals: understanding the background of each NFT project and what is the goal of the House, and considering why a House chose to embark on such a project and how it fits within its overall strategy.
- Concept and innovation: exploring the innovative elements of the NFT project, different from the traditional luxury practices of the House, and analyzing how the project aligns with the changing landscape of luxury and consumer preferences.
- Target audience: identifying the intended audience for the NFT project and considering how the project resonates with the preferences and behaviors of the target audience.
- Integration of technology and craftsmanship: examining how the project combines technology and craftsmanship, and assessing whether the integration enhances the overall luxury experience.
- Brand identity and reputation: analyzing how the NFT project aligns with the House's brand identity and reputation and considering the potential impact on the House's perception in the eyes of consumers and the luxury industry.
- Customer engagement and experience: evaluating how the project enhances customer engagement and experience, and exploring whether the project offers personalized elements that resonate with modern luxury consumers.
- Exclusivity and rarity: considering how the NFT project leverages the concepts of exclusivity and rarity, which are integral to luxury branding, and analyzing whether the project manages to maintain the scarcity that luxury consumers often seek.
- Reception and impact: exploring how the NFT project has been received by consumers, media, and the industry at large, and analyzing significant impacts the project has had on a House's market position, sales, and brand perception.
- Future direction: considering the potential implications of the NFT project for a House future strategy and initiatives and evaluating whether this project represents a singular effort or if it hints at a broader shift in the brand's approach.

- **Louis Vuitton lauched “Louis the game” with 30 integrated NFTs**

The Maison Louis Vuitton dates to 1854 in Paris, starting with the manufacture and sale of trunks for wealthy Parisians developing among others its well-known monogram canvas, the flat tops of suitcases and their drum locks, etc. Progressively, it diversified into handbags and clothing, perfumes, jewelry and watches. The House has also already undertaken various collaborations with artists such as Beeple (an American artist known for having produced the work NFT *Everydays: The First 5000 Days*, in the design of ten NFTs), Jeff Koons and Yayoi

Kusama. Today, it is one of the most valuable luxury brands, and is integrated into the LVMH group<sup>46</sup>.

Louis Vuitton is already familiar with the virtual world, and especially with the gaming one. In 2019, it innovated for the first time through the game *League of Legends*, for which Louis Vuitton's creative director at the time, Nicolas Ghesquière, created a skin for the character but also developed a capsule collection for this collaboration.

Two years later, on August 4, 2021, Louis Vuitton's 200th anniversary, the brand launched *Louis, The Game*, where players could customize their character's clothing pattern and colors, as well as enjoy exclusive objects that could not be exchanged or resold (Journal du Luxe, 2021). The scenario features the little mascot, Vivienne, going in search of her 200 birthday candles within different universes forming her journey, allowing her to learn more about the key stages in the life of Louis Vuitton, from profession of leather goods, or the creation of his eponymous house. A dozen of the series of 30 digital creations to collect, have also been designed by the digital artist Beeple, which could only be purchased through a game.

Louis Vuitton was thus able to enter the metaverse and attract a younger clientele, sensitive to the world of gaming and technological innovations. The experience was an initiation to this new universe before perhaps a more assumed future transition towards digital luxury products, a real challenge for a brand which is thus reinventing itself by seeking to combine a tradition and a heritage of a luxury Maison and more inclusive innovation to reach a new audience.

- **Louis Moinet and the artist Tafi**

Watches have always known how to become collectibles and luxury watches are now even becoming digital collectibles as well, as was the case in February 2022 with the watch brand Louis Moinet, one of the first watchmakers to sell in this way NFTs. Louis Moinet is a young Swiss manufacture and brand of fine watchmaking, whose name comes from the prestigious French watchmaker to whom we owe the invention of the chronograph and founded in 2004 by Jean Marie Schaller. It is thus part of this heritage by giving life to unique, often spectacular watches, endowed with an exceptional innovative design and a strong history.

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<sup>46</sup> *Louis Vuitton lance "Louis: The Game", incluant 30 NFTs*, by Journal du luxe, 2021  
<https://journalduluxe.fr/fr/mode/louis-vuitton-jeu-nft>

Louis Moinet and digital 3D creator Tafi have made 1000 NFTs in digital art form from the award-winning Space Revolution watch to spectacular tourbillons, intergalactic spaceships and extraterrestrial materials. These are available exclusively on Exclusif, a premium NFT marketplace and Metaverse partner for luxury brands<sup>47</sup>. All were sold in seven minutes at a price of 0.2 ethereum, or around €610 at the time (now this one has lost value and is only around €341)<sup>48</sup>. The 1,000 original limited-edition digital watches each feature 3D artwork and unique experiential utility. All these NFT watches in the collection also retain their functionality in their virtual form.

The lucky holders of these NFTs were also able to participate in a draw in the hope of winning a real version of the Super Moon watch, released during the International Fine Watchmaking Show "Montres et Merveilles" which was held in Geneva, in addition to additional digital unlocks including augmented reality and physical utility. In addition, co-holders of Louis Moinet's NFTs, Exclusif's Alpha NFT collection and Tafi's avatars collection were able to receive additional special benefits<sup>49</sup>.

According to Jean-Marie Schaller, CEO of Louis Moinet, the objectives for the brand to reach a new generation of customers who are above all younger and more connected, as well as to create more relationships with them, have been met. Moreover, the success is such that Louis Moinet is already considering another NFT project.

- **Gucci and Aria**

Gucci specializes in fashion and luxury and more specifically offers handbags, ready-to-wear, shoes, accessories (watches and jewelry), cosmetics, perfumes, and decoration products. Launched in 1921, the luxury brand experienced an international boom from the 1950s and joined the Kering group in 1999.

After its very first NFT inspired by its Aria campaign and auctioned by Christie's in May 2021, the Italian house Gucci confirms its presence in the universe of the Metaverse by joining forces with Superplastic, an American company world leader in the creation of animated celebrities,

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<sup>47</sup> Euronews, 2022

<https://fr.euronews.com/culture/2022/04/05/watches-and-wonders-2022-ancree-dans-la-tradition-l-horlogerie-adopte-les-nouvelles-techno>

<sup>48</sup> Coinbase

<sup>49</sup> Louis Moinet, 2022

<https://www.louismoinet.com/discover/nft/>

vinyl and digital collectibles from Paul Budnitz. This ultra-limited drop by the name of SuperGucci was made available from February 1, 2022, on [superplastic.co](https://superplastic.co) and [guccivault.com](https://guccivault.com), Alessandro Michele's online concept store<sup>50</sup>.

This SuperGucci series reserves a selection of ceramic sculptures, handmade in Italy, as well as exclusive NFTs with a design that marries digital style with the house's historical codes such as Gucci's signature floral motifs and reinterpreted in the image virtual mascots such as the Janky cat or the Guggimon rabbit. A total of three launches are planned, and for the first, for example, the famous SuperJanky evolves in ten whimsical scenarios inspired by the Gucci Aria collection<sup>51</sup>.

It offered collectors digital assets that combine high fashion and digital artistry, and it allowed Gucci to tap into the growing interest in NFTs and engage with its audience in a novel way. The project aimed at exploring the intersection of luxury fashion and digital art through the creation of unique NFTs. The use of NFTs allowed for the creation of unique, verifiable, and tradable digital assets that represented Gucci's iconic motifs and symbols. The primary objectives were to engage a digitally savvy audience, experiment with new forms of artistic expression, and potentially generate additional revenue. The target audience likely included digital art collectors, luxury fashion enthusiasts, and individuals interested in emerging technology and blockchain, and Gucci aimed at engaging a broader and younger audience by leveraging the popularity of NFTs and digital art. The project introduced innovation by combining high fashion with digital art on blockchain technology, and it showcased how luxury brands such as Gucci can embrace digital trends while maintaining their artistic integrity. The project seamlessly integrated technology (blockchain and NFTs) with luxury fashion and demonstrated how a traditional luxury brand can embrace digital innovation while maintaining its brand essence. By creating digital assets tied to its Aria collection, Gucci extended its luxury offerings into the digital realm.

Besides, the project aligned with Gucci's brand identity by blending its iconic designs with cutting-edge technology. It showcased Gucci's willingness to adapt to digital trends while preserving its luxury heritage. This collaboration reinforced its reputation as a forward-thinking

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<sup>50</sup> *Gucci inaugure sa première exposition d'oeuvres d'art NFT "The Next 100 Years of Gucci"*, by Jessica Scemama, Vogue, 2022

<https://www.vogue.fr/mode/article/gucci-exposition-oeuvres-art-nft-the-next-100-years-of-gucci>

<sup>51</sup> Gucci, 2022, <https://www.gucci.com/fr/fr/st/capsule/vault-metaverse>

and innovative brand. Besides, the project provided a unique and immersive experience for consumers able to own and interact with digital versions of Gucci's designs. Consumers engaged through a different medium, fostering curiosity and excitement around the blend of luxury and digital art. Moreover, the NFTs offered exclusivity and rarity, consistent with luxury brand practices. Each NFT was a one-of-a-kind digital asset, appealing to collectors who value uniqueness. The project's reception depends on the reaction of digital art enthusiasts, luxury consumers, and the media, and its impact was reflected in media coverage, conversations about the convergence of luxury and digital art, and potential revenue generated from these NFT sales. This project signals a broader trend in luxury brands exploring digital art and NFTs to engage a new audience, and it prompts Gucci, and other brands, to consider further collaborations, expand into the digital art space, or explore more innovative intersections between luxury and technology.

- **Dolce & Gabbana and the Collezione Genesi**

Dolce & Gabbana, an Italian luxury house, offers clothing products for women, men and children, but also cosmetics, lingerie, accessories and decoration. It has been famous for its colorful prints and ultra-feminine cuts since the 90s.

The Dolce & Gabbana house, on its Alta Moda show in Venice in November 2021, presented the Collezione Genesi of nine NFT pieces in collaboration with the UNXD marketplace and the digital artist Marco Braga<sup>52</sup>. Moreover, some buyers are among the biggest NFT collectors in the world. The collection included a series of digital artworks that merged Dolce & Gabbana's iconic designs with elements of the digital realm. Of the 9 pieces, five are physical creations that also have digital versions that can be used in the metaverse (The Dream Robe, a male costume, the Crown of the Lion, and the Crown of the Doge), and four other pieces are entirely bespoke virtual creations (The Impossible Tiara and three jackets for men).

The collection was also made available online at unxd.co to appeal to the cryptocurrency investing community, and was auctioned off including the physical (physical asset and its original sketch) and digital utility version (custom metaverse wearable), a two-week installation of the objects in the Dolce & Gabbana flagship store in Milan on behalf of the collector as well as in any Dolce & Gabbana boutique in the world, access to exclusive Dolce

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<sup>52</sup> *Dolce & Gabbana is bringing NFTs to the traditional world of couture*, by Dana Thomas, Vogue, 2021  
<https://www.vogue.fr/fashion/article/dolce-and-gabbana-nfts-couture>



& Gabbana events, and finally a private tour of the Alta Moda atelier in Milan. This was a historic record for Dolce & Gabbana NFTs with a total amounting to more than 1885.73 ETH (i.e., €3,214,385 today, but €5,161,180 at the time in 2021).

The collaboration aimed to explore the synergy between luxury fashion and digital art through NFTs. It offered a new way for Dolce & Gabbana to engage with its audience, and included generating interest from collectors, experimenting with digital mediums, and enhancing brand visibility. The target audience included collectors fascinated by digital art, fashion enthusiasts interested in innovative projects, and individuals intrigued by luxury's intersection with technology. The project creatively fused Dolce & Gabbana's fashion identity with digital art in the form of NFTs. It demonstrated the brand's adaptability to evolving trends. By leveraging NFTs, Dolce & Gabbana transformed physical designs into verifiable and tradable digital assets. The collaboration seamlessly integrated NFT technology and luxury fashion. It showcased how a traditional fashion brand can enter the digital art space while maintaining its identity. The project aligned with Dolce & Gabbana's reputation for blending creativity with luxury. It showcased the brand's willingness to experiment with new creative horizons. The project provided a unique engagement opportunity, allowing consumers to own exclusive digital artworks inspired by Dolce & Gabbana's designs. Collectors could experience the brand in a novel way, appealing to a digital-native audience. As always, each NFT in the collection representing an exclusive piece of digital art, it maintained its luxury principles of exclusivity and scarcity. The project's reception was evident through media coverage, discussions about luxury in the digital art sphere, and the engagement of collectors in NFT auctions, as said before.

- **Burberry and the "Blankos Block Party" game**

Burberry began as a British tailor specializing in luxury men's coats and raincoats. Gradually, it became essential in sober, refined and very good quality masculine elegance, and gradually extended to women, children, accessories, bags and luggage, and even perfumes, recognizable by its Scottish pattern.

In 2021, the house had already launched a collection of a digital character called Sharky B and its corresponding accessories, and the following year, had imagined a new unicorn character this time called Minny B. These characters reinterpret both tiles and Burberry's signature orange monograms.

Once again, the Burberry brand returns with a new NFT project in collaboration with Mythical Games and its platform Blankos Block Party, by creating a Burberry virtual world, the Blankos World, with its own characters and virtual accessories. It is thus possible to obtain the character Minny B, which is more exclusive and more expensive, than the accessories which the players can more easily obtain, even resell, and whose Burberry sales touch a percentage of the income.

Here too, the objective for the house is to engage its community, to push the relationship further and to reach a new audience. Sharing luxury and the world of games allows the brand to offer new experiences and develop new concepts, such as virtual fashion. Thus, in 30 seconds, the 750 characters of Sharky B were sold at a price of €299.99 to then be resold at a higher price; in two minutes, 2,250 NFTs sold for around \$375,000, and likes, chats, reposts, and shares skyrocketed audiences<sup>53</sup>.

- **Givenchy and Chito**

Matthew Williams, artistic director of the Givenchy house since 2020, offered his first entirely digital collection the following year, made of a limited line of 15 NFT designs inspired by the spring 2022 collection in collaboration with the artist Chito. This will be launched at the same time as the spring 2022 pre-collection The codes of the spray-painted characters, industrial aesthetics, the austerity of Matthew Williams' style... are all elements that we found on these dematerialized garments that buyers can use for their online avatars or profile photos. An auction was organized on the OpenSea marketplace and platform during the last week of November 2021<sup>54</sup>.

The project aimed to explore the merging of luxury fashion and virtual assets within the context of NFTs, and to engage a tech-savvy audience, experimenting with digital fashion, and generating buzz around the brand. The target audience included fashion enthusiasts, collectors interested in digital assets, and individuals curious about the intersection of luxury and blockchain technology. The project was showcasing innovation by transforming physical luxury fashion into a digital form that are NFTs. It demonstrated how luxury brands can expand into the virtual space. Indeed, it effectively integrated blockchain technology and luxury

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<sup>53</sup> *Burberry brings back the Blankos Block Party NFT-based game*, Maghan McDowell, Vogue, 2022  
<https://www.voguebusiness.com/technology/burberry-brings-back-the-blankos-block-party-nft-based-game>

<sup>54</sup> *Givenchy dévoile une collection NFT avec l'artiste Chito*, Marthe Mabile, Vogue, 2021  
<https://www.vogue.fr/mode/article/givenchy-collection-nft-collaboration-chito>

fashion, offering a new way for consumers to engage with the brand's designs, and extending its brand presence into the digital realm to experiment with virtual products. The collaboration aligned with the brand identity by blending its fashion expertise with digital innovation. It demonstrated its willingness to explore emerging trends, and the project offered a unique experience by allowing consumers to own and showcase virtual assets designed by the brand.

Moreover, the brand was not at its first attempt. Indeed, the Givenchy house, which belongs to the LVMH group, and more precisely Givenchy Beauty, had already imagined digital makeup for the Animal Crossing game in July 2020, and in June, Givenchy Parfums this time had worked on 1,952 NFT works. co-designed with several artists from the Rewind collective, the Amar Singh Gallery and the Veve platform<sup>55</sup>.

- **Prada and its Timecapsule NFT collection**

Prada was founded in 1913 in Milan by two brothers and was originally a leather goods company and importer of luggage from England, before branching out into ready-to-wear in the 1980s.

In June 2022, Prada took up the concept of the limited editions launched each month and for 24 hours on the Prada website. On the first Thursday of each month, each "Timecapsule" garment will be linked to an NFT issued on the Ethereum blockchain, backed by Aura technology. For example, a shirt in 100 copies designed in partnership with the artist Cassius Hirst, already collaborator of the brand on the Prada America's Cup basketball project, was proposed, and gives access to new experiences and future drops of the House<sup>56</sup>.

It aimed to explore the fusion of luxury fashion and digital art through NFTs, extending Prada's brand presence into the digital space, and to engage with art and fashion enthusiasts, experimenting with digital mediums, and generating brand visibility. Besides, each NFT in the collection represented a unique piece of digital art, maintaining the luxury principles of exclusivity and rarity. The project innovatively combined Prada's runway inspiration with digital art in the form of NFTs. It showcased the brand's creative approach to digital trends. NFTs allowed Prada to create verifiable and collectible digital assets based on its fashion

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<sup>55</sup> *Givenchy poursuit sa collaboration avec l'artiste Chito en mettant aux enchères 15 NFT*, Journal du luxe, 2021  
<https://journalduluxe.fr/fr/mode/givenchy-chito-encheres-15-nft>

<sup>56</sup> *Prada poursuit sa quête des NFTs*, by Pauline Duvieu, Journal du Luxe, 2022  
<https://journalduluxe.fr/fr/mode/prada-nft-timecapsule>

collection. The target audience included collectors interested in digital art, fashion aficionados, and individuals intrigued by the intersection of luxury and technology. The project created an engaging experience by allowing consumers to own unique pieces of digital art inspired by Prada's creations. It offered a new type of collectible for fans. The collaboration integrated NFT technology with luxury fashion, offering a fresh way for consumers to engage with Prada's design concepts, and as usual it extended Prada's fashion storytelling into the digital realm. It also aligned with Prada's reputation for artistic and creative expression and demonstrated its adaptability to digital mediums while staying true to its essence.

In addition, the House also presented Prada Crypted, its "new community server" on the Discord platform, with the aim of connecting the brand's community around the worlds of art and fashion. The success of this project could influence Prada's future exploration of digital art initiatives or partnerships, as well as motivate other luxury brands to consider similar creative endeavors in the NFT space.

- **Balmain X Barbie**

The French house Balmain quickly distinguished itself with its clothing collections as well as its perfumes, and since 2019, has returned to the Haute-Couture scene. The brand, under the artistic direction of Olivier Rousteing, has also proposed several collaborations with the ready-to-wear brand H&M and even with Nike.

Barbie and Balmain teamed up in early 2022 and offered three unique NFTs of original Barbie and Ken avatars wearing Balmain looks, created in collaboration with FORGOT ME NOT GMBH, for which buyers also get a mini-Matching Balmain outfit for Barbie. A capsule collection of around seventy pieces combines the audacious American style and the iconic codes of the Barbie toy with those of the French luxury house such as the Labyrinth motifs featuring the Balmain logo or the mini dress, the marinière, large golden buttons...<sup>57</sup>

It merges luxury fashion, pop culture and NFTs to engage a young audience experimenting with digital fashion and generating buzz around the brand. The target audience also included fashion enthusiasts, collectors interested in digital assets, Barbie fans, and individuals simply curious about the intersection of luxury and blockchain technology. The project was

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<sup>57</sup> *Balmain et Barbie vont lancer une collection de prêt-à-porter et des NFT*, Sandra Halliday, Fashion Network, 2022  
<https://fr.fashionnetwork.com/news/Balmain-et-barbie-vont-lancer-une-collection-de-pret-a-porter-et-des-nft,1366353.html>

showcasing double innovation by transforming physical luxury fashion into a digital form that are NFTs and taking references to a well-known icon of the pop culture: Barbie. It demonstrated how luxury brands can expand into the virtual space using culture and art. It effectively integrated blockchain technology and luxury fashion, offering a new way for consumers to engage with the brand's designs, and extending its brand presence into the digital realm to experiment with virtual products. The collaboration aligned with the brand identity by blending its fashion expertise with digital innovation, and above all, demonstrated its willingness to explore emerging trends, and the project offered a unique experience by allowing consumers to own and showcase virtual assets designed by the brand.

- **Hermès and the MetaBirkin project**

It is also interesting to give an example of an NFT project of a luxury house which did not end in success. In early 2022, the Hermès house, for example, sued the artist Mason Rothschild for his MetaBirkin project, launched without authorization from the house of which it is the emblematic bag. The artist has imagined different variations offered for sale in the form of NFT, for a total of more than one million euros on Opensea<sup>58</sup>. According to the French brand, this constituted an infringement of intellectual property, because even if these are virtual, they remain identified as Birkin bags and thus are not free of rights or use.

Hermès asked the American artist to stop any creation and marketing denouncing an infringement of his brand and his intellectual property, an approach considered misleading for consumers. The artist defended his freedom of expression and his right to create art based on the interpretation of the world around him.

NFTs can thus be used as acts of crypto counterfeiting, i.e., reproducing luxury products, for example in digital form. This raises several questions as to trademark law in the Metaverse on the name and configuration of a product which in the form of NFT is no longer part of the same product class. This legal void thus concerns the link between counterfeits of real, physical works and counterfeits of digital objects. Marketplaces are looking to implement ways to report these counterfeits and ask users to respect intellectual property rights.

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<sup>58</sup> *Les marques de luxe s'emparent des NFT*, Virginie Jacobberger-Lavoué, Les Echos, 2022  
<https://www.lesechos.fr/industrie-services/mode-luxe/les-marques-de-luxe-s'emparent-des-nft-1410431>

## **V. RESULTS AND ANALYSIS**

### **A. Contextual environment exploration and past timeline**

#### **a. Political**

As we saw with the MetaBirkin example and Hermès, there is a gap in the law when it comes to the metaverse and NFTs, and the ability to ensure a virtual secure environment. The notion of virtual law still needs to be developed, as it is a growing technology attracting a good number of users. The lack of enough precise laws and legal framework does not enable to benefit from an environment that is sufficiently secure. Risks users can encounter are often linked to data security, to Internet regulations, information on products, intellectual property, etc. Hence, it is necessary to establish solutions and answers to these issues, as well as to build safe legal, political and technical conditions.

#### **b. Economic**

The Blockchain standardizes the transfer of digital currencies, and it is now possible to make a profit from these tokens. In addition, thanks to digital commerce, products and services are diversifying, as is the case with NFTs that bring new ways to interact commercially or socially. The metaverse is today mainly invested by the gaming sector which has approximately 37% of the penetration of virtual scenes, followed by 31% for that of music<sup>59</sup>. More and more people are investing in projects related to the metaverse, which is developing the sector and the importance of the digital economy, and NFTs are linking the value of tangible and virtual assets. Virtual works of art launched by luxury companies are growing in popularity every time and some studies anticipate that within five years, the metaverse will reach nearly 900 billion dollars, driven by an increased demand for NFTs as a means of exchange of digital assets<sup>60</sup>.

#### **c. Social**

Luxury products developed in the form of NFT make it possible to broaden the proposals made, and thus the adhesion and experience of customers and users. However, if the metaverse and the NFTs are a positive contribution, others consider them with more restraint, and this can be influenced by different social elements such as the level of education, social interest or even income. The uses of the metaverse and NFTs today remain primarily related to games, online

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<sup>59</sup> *What is the metaverse?*, by Mac Kinsey & Company, 2022  
<https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-the-metaverse>

<sup>60</sup> *What is the metaverse?*, by Mac Kinsey & Company, 2022  
<https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-the-metaverse>

shopping, but also social experiences, immersive experiences, and real estate. Indeed, the metaverse must offer a practical environment where one can see a true multifaceted experience. But he is also criticized for his lack of a sense of real social connection, authenticity and trust. It still needs to make progress, but these are good goals to achieve and thus good starts for possible improvements in order to drive off the questionings, doubts and criticisms.

#### d. Environment

Improvements need to be made to the overall sensory experience within the Metaverse, and related to NFTs, and conventional marketplaces in digitally growing industries must also evolve to continue to make sense, to meet market demands while remaining consistent and compatible with the Metaverse. From an environmental point of view, if the virtual world of the metaverse makes it possible to reduce certain carbon emissions, it contributes all the same through its technology using cloud services and very energy-intensive data centers, through electronic waste, etc. In addition, it is necessary to consider the growing consumer demand for environmentally friendly practices, and this is what some companies are focusing on with their Metaverse environmental programs, which reflect on developing and promoting the use of the Metaverse and NFTs without contradicting the objectives of sustainable development.

#### e. Legal

The metaverse and its associated technology also increases the risk of cybercrime. And even though the vulnerability of the metaverse is expected to decrease as it grows and improves, cyberattacks and the need for strict cybersecurity rules are necessary. For example, sometimes counterfeit NFTs are sold as original works of art, which is a crime in the real world but still little discussed in the virtual sphere. Due to the anonymity that blockchain provides, it is indeed difficult to identify criminals. Thus, brands need to think about protecting their consumers, marketing and advertising regulations, privacy and data security issues. In order to foster a healthier virtual environment, metaverse online security measures must therefore be stated and strictly enforced, such as regarding virtual property which must be able to ensure strong protection of customers' property for example.

#### f. Technology

The Metaverse, as a virtual world mixing digital elements with physical reality, uses technologies like virtual and augmented reality. It plays the role of a connected and immersive

social network offering different uses and possibilities of interaction with other users or with its digital objects. While online video games have always taken advantage of it earlier than other sectors, companies are imagining ways to combine its products or services with its new technologies of blockchain, augmented reality, virtual reality, 3D construction, AI, etc.

## B. Driving forces

### a. The concept of User Economy

#### 1. Metaverse and consumer levels

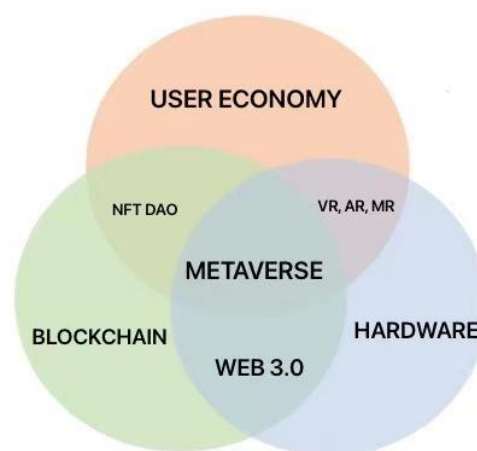


Figure 4: The concept of User Economy. Source: <https://www.hbrfrance.fr/chroniques-experts/2021/10/39616-metaverse-un-univers-virtuel-pour-une-nouvelle-economie-bien-reelle/>

The concept of the user economy, also known as the "participation economy" or "collaborative economy"<sup>61</sup>, refers to a modern economic model where individuals play an active role as both consumers and producers, contributing to the creation, distribution, and consumption of goods, services, and experiences. In the user economy, technology and digital platforms facilitate peer-to-peer interactions, enabling individuals to exchange resources, skills, and knowledge with one another. This model contrasts with the traditional consumer-producer relationship and has gained importance due to the rise of digital platforms, social media, and the sharing economy.

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<sup>61</sup> Metaverse, un univers virtuel pour une économie bien réelle, HBR  
<https://www.hbrfrance.fr/chroniques-experts/2021/10/39616-metaverse-un-univers-virtuel-pour-une-nouvelle-economie-bien-reelle/>



The user economy is a rather broad concept, but when approached from the angle of NFTs in luxury, takes on a unique dimension that combines digital ownership, creative work and collaboration, and personal engagement. Indeed, NFTs in luxury could empower individuals to participate in the creation, curation, as well as consumption of digital and virtual luxury goods, thus offering a new level of personalization and engagement. The combination of NFTs and the luxury sector offers an innovative way to approach the user economy, enabling users to actively shape their digital luxury experiences, to contribute to creative endeavors, and to be immersed in a world of virtual luxury ownership and engagement. This economic model meets the needs of users as well as the ecology made up of users and the creation of content and interaction, based on satisfying user demand, whether they are looking for information, to be entertained, to connect with others, or to work, etc.

Technological, social and economic progress influences people's behavior that is more digital, digital, intangible and immaterial. Thus, we see more and more investments in virtual assets such as NFTs. This has the effect of encouraging the development of new structures such as that of the metaverse.

## *2. Blockchain technology and digital assets*

The metaverse is based on a virtual economy governed by blockchain, cryptocurrency and available digital assets (including NFTs). This blockchain technology can serve the luxury sector in different ways (transparency, tracking, security and therefore increased growth, etc.), and brands can take significant advantage in the market of this "tokenization" of irreplaceable assets that can be bought, stored, traded or sold like any other commodity.

NFTs can thus constitute a true complete digital collection with its own attributes of rarity. Consumers and users are always looking to meet their social needs, their cultural identification. Luxury brands are thus following the movement and placing themselves more and more in the digital sphere by investing in digital collectibles, in NFTs, and by deriving significant revenues from them.

### **b. Gen Z and behaviors**

Generation Z was born in the 90s and therefore evolved in the 2000s marked by significant changes, and by the development of a technological and digital environment. They are also called "digital natives", "Gen I", "Gen Wii" or even "Gen Tech"<sup>62</sup>. This generation is thus marked by a strong sense of digital identity. It is also a generation that seeks individuality, rather more culturally diverse than the previous ones, and thus who likes to question current societal norms. In fact, this generation wishes above all to connect with brands that share their same values. Of course, there are differences within this same generation Z, and we can thus distinguish two sub-groups: Gen We and Gen Me<sup>63</sup>. If the second is relatively better understood because it is more studied, the first is the one that really shakes things up and forces brands to review their strategies. It is important to clarify that even though we distinguish between two distinct groups, the reality tends to be more fluid, but for the sake of the job, I do it that way.

### 1. *Gen Me*

The Gen Me group is, for most of it, Gen Z customers. They are preoccupied with challenges but may be reluctant to speak up and take real action, and so follow current trends rather than rethink them. They spend a lot of time on the Internet and above all on social networks and can thus find themselves developing two identities: their real person and the one built on the networks. They see the networks as an information tool, such as Instagram or YouTube, and thus question the more traditional ways of teaching. Those also know how to be creative and are the most entrepreneurial, as studied in 2016 by the Monster employment website and the international research organization TNS<sup>64</sup>. Gen Me likes to shape their identity around the popular ideal of what is "cool" and trendy, and where aesthetics and appearance play an important role (women of this generation spend approximately \$370 per year on products beauty and skincare, 18% more than the previous year)<sup>65</sup>. Resale is also an industry of great interest to this generation, and it is expected to overtake fast fashion within four years (54% of Depop members are currently between 14 and 24 years old)<sup>66</sup>. This generation is also very interested in the world of video games and the possibility of escaping reality that they provide. 90% of men and 70% of women between the ages of 13 and 17 have access to it (Pew Research,

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<sup>62</sup> *Meet Generation Z: The second generation within the giant "Millennial" cohort*, by Bruce Tulgan and Rainmaker Thinking, Inc., 2013.

<https://grupepsichoterapija.lt/wp-content/uploads/2017/09/Gen-Z-Whitepaper.pdf>

<sup>63</sup> *The Gen Z equation* by Sarah Owen et al., WSGN, Senior Editor, Digital Media & Marketing, 2018.

<sup>64</sup> *Move over, Millennials: Gen Z is about to hit the workforce*, by Monster, 2016. <https://www.monster.com/about/a/move-over-millennials-gen-z-is-about-to-hit-the-workforce>

<sup>65</sup> *Piper Jaffray Completes Semi-annual Generation Z Survey of More Than 6,000 US teens* by Business Wire, 2018

<sup>66</sup> *ThredUp 2018 Resale Report* by James Reinhart, ThredUp, 2018.

<https://www.thredup.com/resale/>

2021)<sup>67</sup>. And it is not just a hobby since many are those who derive income from it. The most notable “leading” guiding themes for this generation are:

- Celebrities, like Kylie Jenner, influencer within female Gen Me and aesthetics’ industry
- "Memes", almost a new language made of visuals of all kinds replacing words
- The “Streetwear” that experienced significant growth with brands like Nike, Supreme
- The "hype product" (true marker of social status)

Besides, the community component that a brand can develop with its audience is essential, and all the more so online where it is possible to reach people from all over the world.

## 2. *Gen We*

The members of Gen We, on the other hand, are more attentive to their political and global environment. These focus on wanting to de-taboo the fears of judgment and promote communication about one's weaknesses and to question the image of a perfect ideal to be achieved. Giving places of possible expression, promoting difference, body positivity and self-acceptance is very important for this part of the generation<sup>68</sup>. Being yourself and defying norms, all to foster the empowerment of individuals and collaboration between people, is what motivates them. They have ambitions and the establishments, brands, companies that surround them must succeed in making the changes required to be supported by this generation. Companies that promote diversity and inclusion are the most sought after, as they are very selective about who they choose to support and buy products from. The digital and digital universe is used with objectives of collaboration, coordination, information on topics important to them such as environmental sustainability, diversity and tolerance<sup>69</sup>. It is also a generation that likes to travel and discover new things. Personal development is one of the major motivations of this generation. Social media allows them to create these online micro-communities where they can come together around common topics like mental health, sustainability, inclusivity, rights, etc. If the Gen Me is looking for macro-influencers, the Gen We are looking more at themselves.

## 3. *Shopping behaviors*

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<sup>67</sup> “Chapter 3: Video Games Are Key Elements in Friendships for Many Boys” by A. Lenhart, Pew Research Center, 2015 <https://www.pewresearch.org/internet/2015/08/06/chapter-3-video-games-are-key-elements-in-friendships-for-many-boys/>

<sup>68</sup> *The Gen Z equation*” by Sarah Owen et al., Digital Media & Marketing, 2018

<sup>69</sup> *The Gen Z equation*” by Sarah Owen et al., Digital Media & Marketing, 2018

Globally, 40% of customers are Gen Z, a critical demographic for brands, and by 2035, 40% of the global personal luxury market is expected to be their spending (McKinsey & Company)<sup>70</sup>. These figures may increase for companies combining authenticity, transparency and sustainability, offering personalized and thus unique shopping experiences, offering good value for money and different options, for those finally developing a certain technology that is rewarding and convenient for customers<sup>71</sup>.

Generation Z favors authenticity, transparency, quality and sustainability and is therefore quite critical of marketing that they will not hesitate to denounce. It relies on the opinion of those around them, such as their friends, family and peers<sup>72</sup>. A brand must be transparent and respect their core values. Environmental protection is an important component of this, and long-lasting, high-quality products are therefore preferred<sup>73</sup>. About 73% of Gen Z are willing to spend an extra 10% on eco-friendly products (First Insight)<sup>74</sup>.

Gen Z also favors product variety, cost, availability, consistent delivery and convenience in their buying decision. It is essential for them to be able to easily find the products and their information and that their purchase is facilitated until payment. Social networks are a good platform for communicating between companies and customers and exploiting data on purchasing habits and preferences, for example.

Considering and betting on new technologies and innovations seems essential to reach this part of the population. Smartphones are now an integral part of their daily lives, and so mobile use must be developed by companies. New tools are also designed to offer new innovative services and are particularly successful with this generation, as is the case, for example, with magic mirrors, which offer a virtual image to the customer with the products they are trying out. However, if this technology is in demand, it must also be above reproach because this

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<sup>70</sup> “*State of Fashion 2021*” by McKinsey & Company, 2021

<https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/state%20of%20fashion/2021/the-state-of-fashion-2021-vf.pdf>

<sup>71</sup> “*What do Gen Z shoppers really want? - Retail essentials and customized experiences top their list*” by Jane Cheung et al., IBM Institute for Business Value, 2018

<sup>72</sup> “*Gen Z brand relationships: Authenticity matters.*”, by IBM Institute for Business Value, 2017

<https://www01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=GB912426USEN>

<sup>73</sup> “*Gen Z Is Emerging As The Sustainability Generation*”, by Greg Petro, 2021

<https://www.forbes.com/sites/gregpetro/2021/04/30/gen-z-is-emerging-as-the-sustainability-generation/?sh=1cab4fd86995>

<sup>74</sup> “*What do Gen Z shoppers really want? - Retail essentials and customized experiences top their list*” by Jane Cheung et al., IBM Institute for Business Value, 2018

generation, as much as it is enthusiastic, can also be the most critical and frustrated if it does not prove to be reliable<sup>75</sup>.

Brands that emphasize the value of one-on-one and individualized interactions and personalized customer experiences and shopping experiences are more popular among this generation. The desire for individualization can be carried by a company in order to personalize the customer's experience according to their tastes and purchasing habits. In fact, 64% of Gen Zers said personalized prizes or loyalty rewards were paramount, and 65% said rewards programs influenced their purchasing decisions and behaviors<sup>76</sup>. Companies must therefore learn to respond to this individually, and new technologies are particularly useful for this. Indeed, machine learning as well as personalization allow to improve the understanding of the individualized preferences of their customers. However, at the same time, this generation may be reluctant to share their personal information and have a real need for confidentiality. They are mostly more willing to share this personal data if they are assured of its security and protection. It is a real relationship of trust that must be established between these consumers and the brands.

## **C. Future of NFTs in the luxury industry**

### **a. NFT trends in luxury**

#### *1. Predominance of premium companies in NFTs*

CoinGecko conducted a study in 2022 to rank international brands with the most experience in the NFT universe, but no direct core business with the digital and cryptocurrency universe, and premium companies emerged as big winners. In fact, 52 firms were selected from 11 different sectors. The Luxury Goods category alone has identified 19 houses linked to NFTs activities since 2020, including Louis Vuitton, Givenchy, Gucci, Prada, Dolce & Gabbana, Balmain, Burberry... (some examples having been seen previously), and there are also brands of watches and jewelry (Hublot, Tiffany & Co.) or automotive (McLaren, Mercedes AMG-Petronas, Porsche), etc.<sup>77</sup>

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<sup>75</sup> “Uniquely Generation Z: What brands should know about today’s youngest consumers.”, by IBM, 2017  
<https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=GBE03799USEN>

<sup>76</sup> “Gen-Z Shopping: Separating Myth from Reality” by M.C. Nanda, The Business of Fashion Ltd., 2020

<sup>77</sup> Which Industry has the Most Brand NFTs?, GoinGecko, 2023  
<https://www.coingecko.com/research/publications/industries-with-brand-nfts>

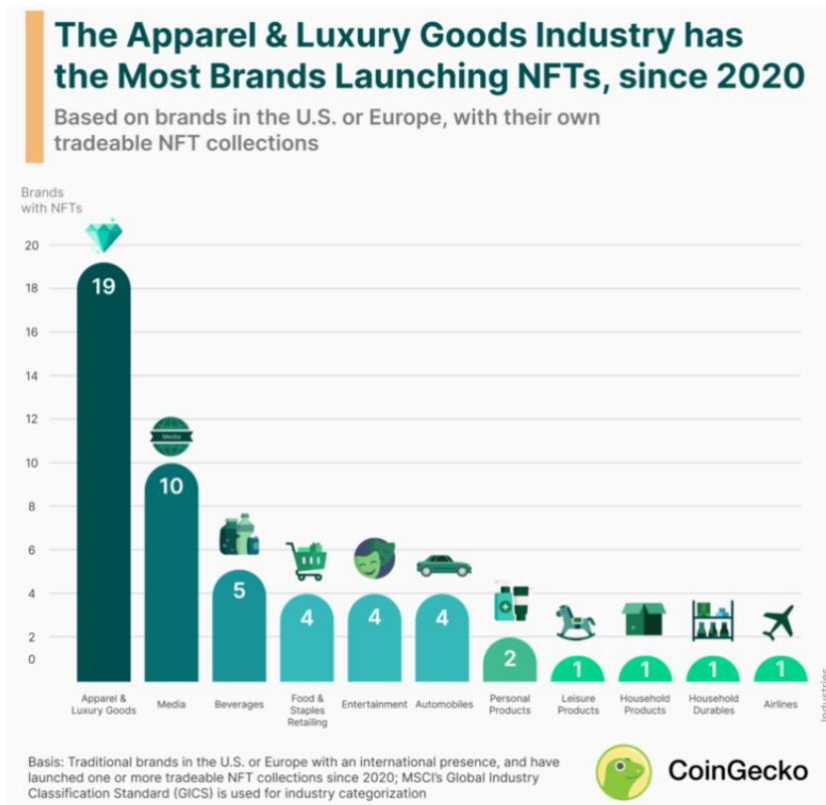


Figure 5: The Apparel and Luxury Goods Industry has the Most Brands Launching NFTs, since 2020. Source: <https://www.coingecko.com/research/publications/industries-with-brand-nfts>

## 2. A gradual but palpable introduction

According to a study by the Colbert Committee conducted by Bain & Company, on average 2.3 out of the 75 member French luxury houses have adopted an innovation such as AI, blockchain, the metaverse or even NFTs... It's also worth noting that houses that are in groups tend to take the leap about twice as fast as independent ones. Thus, 51% of the houses that are members of the committee are planning a project linked to NFT by 2025 and around 72% for those that are part of a large group<sup>78</sup>.

The difference between what is planned to be done and what is currently being done reflects a still cautious attitude on the part of houses to embark on their new technologies, due firstly to a lack of internal skills but also by a certain difficulty in aligning this with the real needs of the luxury sector. These technologies are being tested by the houses with the aim of improving

<sup>78</sup> *Luxury and technology: the beginning of a new era*, by Comité Colbert, 2022  
<https://www.bain.com/about/media-center/press-releases/2022/luxury-and-technology-the-beginning-of-a-new-era/>

customer engagement and better understanding consumer habits, which have also changed a lot with the Covid-19 pandemic.

## b. Roles of NFTs in luxury

### *1. Authenticity and transparency*

By leveraging blockchain technology behind these tokens, consumers have access to unprecedented levels of transparency about the origins, materials, and processes behind their products from their favourite brands or designers before making any purchase decisions. NFTs provide customers with more transparency and authenticity when making purchases.

Linked to a physical luxury item and creating an immutable record of the product's journey from creation to ownership, NFTs assure consumers of the item's authenticity. Indeed, the blockchain technology ensures that information recorded on a NFT is tamper-proof and thus, cannot be altered. It guarantees that the information about a luxury item's authenticity remains accurate and trustworthy. As direct digital certificates of authenticity, consumers can easily verify the genuineness of their luxury purchases. For example, a luxury brand could issue limited-edition NFTs to accompany specific products, ensuring that consumers can confirm the exclusivity and authenticity of their purchase. It allows increased transparency when buying or selling high-end products due to its immutability: buyers know exactly what they're getting since each token carries a unique identifier which can be tracked on the blockchain ledger system used by NFTs; and sellers have more control over their inventory since no two tokens are alike. It makes it easier to track sales numbers without having worry about counterfeits entering marketplaces.

Luxury brands can use NFTs to share detailed information about the materials used in the creation of their products, about the craftsmanship involved to promote transparency in the manufacturing process, or even information about the environmental impact of producing a luxury item to help consumers make informed decisions based on their sustainability considerations. By being linked to a transparent supply chain, consumers can trace the origin and journey of materials, ensuring ethical sourcing. Additionally, through smart contracts built into these platforms' customers can easily track their purchases over time making sure that what they bought stays authentic throughout its life cycle.

Since the secondary market is growing, NFTs can provide a good mechanism to verify their authenticity and ownership history, and it also helps to prevent the grey market by ensuring that consumers are purchasing authentic items from authorized sources. It is also an efficient way to combat counterfeit, as it makes it much more difficult for them to replicate or imitate.

Finally, luxury brands can use NFTs to share authentic brand stories, to educate and connect consumers to their heritage values, and commitment to authenticity and transparency. Consumers can feel empowered by NFTs when it comes to verifying the authenticity and background of a luxury item independently, fostering trust between the brand and its customers, and thus, building consumer confidence in the brand's commitment to quality, ethics, and responsible practices.

As a result, incorporating NFTs into a brand's authenticity and transparency efforts helps to increase consumer trust, to differentiate itself, and to provide a certain level of reassurance that aligns with the needs of discerning luxury consumers. To better cater the benefits of NFTs in this field of application, it is necessary to communicate clearly how they are used and how they contribute to the authenticity and transparency of luxury products. NFTs are developing improved security protocols attracting many industries that must rely on the protection of information. The potential uses of smart contracts, NFTs and blockchain could developed in the coming years, becoming perhaps among the most secure ways to exchange confidential information.

## *2. Exclusive access and customer engagement*

The growing popularity of NFTs in the luxury sector has opened new opportunities for brands looking to differentiate themselves from their competitors by offering customers exclusive access via tokenized products and thus unique and premium experiences. As seen earlier, many fashion designers are now offering limited edition items that can only be purchased from an online marketplace using cryptocurrency payments secured by blockchain technology, ensuring that each item is unique in its kind and that its provenance can be traced throughout its life cycle from production to the sales and delivery process.



In addition, these same platforms allow users who purchase these items to directly access events, exhibitions, fashion shows and other VIP experiences such as early access to private sales or exclusive discounts, from their favourite brands.

These unique rewards unavailable elsewhere resonate with these customer feelings of exclusivity, rarity and value. By providing exclusive access through NFTs, luxury brands deliver a differentiated and immersive experience to their most dedicated customers, reinforcing their brand identity and fostering a deeper connection with them.

Leveraging this technology for marketing purposes, only available through specific channels using NFT instead of traditional methods, would allow brands to issue loyalty points directly onto a public ledger ensuring they cannot be duplicated nor manipulated without authorization, allowing retailers more control over how rewards programs operate within their business model while still providing consumers with increased transparency regarding reward redemption options among other benefits associated with using this type of system. Therefore, NFTs present exciting opportunities for luxury brands to enhance customer engagement and loyalty in the luxury sector.

### *3. Building communities*

Building communities through NFTs in the luxury sector is possible but involves creating engaged and dedicated audiences around unique digital assets. People can get together and discuss their recent investments. True social systems, they can bring out the common trends that shape future markets, and the network effects generate additional value for this new NFT asset class. There are different ways for luxury brands to use NFTs to foster community engagement and interaction.

Offer exclusive content and access as explained above, allowing to foster a feeling of exclusivity that encourages individuals to be part of a chosen community; imagine virtual spaces where NFT holders could present their purchases and connect with others to create links around their common passion for these digital artifacts; organize virtual events, webinars or simply chats focused on NFTs and promote the use of social media dedicated to the luxury NFT community; and many other application possibilities that aim to build a strong community

around luxury NFTs. All these initiatives require real engagement and transparency, but by facilitating interactions and providing unique experiences, it brings value to NFT holders, and luxury brands can build vibrant and dedicated communities.

#### *4. Virtual market and new frontiers*

The virtual market and new frontiers of NFTs in the luxury sector represent exciting opportunities for brands to explore innovative ways to engage consumers and create unique digital experiences.

Besides virtual fashion and accessories NFTs, luxury brands can create virtual showrooms and exhibitions where consumers discover digital art and luxury items in a virtual environment. This is where the concept of the metaverse takes all its meaning as it involves immersive virtual worlds where users can interact with each other and digital objects. Virtual events, launches, and showcases also extend above the physical realm to enter the digital one. As seen previously, luxury brands can also enter new fields like the gaming one, by collaborating with platforms in order to integrate NFTs into virtual games, creating unique in-game assets and experiences. Finally, NFTs can represent ownership of virtual real estate or unique digital properties within virtual worlds offered as exclusive NFTs, that luxury brands can develop.

The virtual market and new frontiers of NFTs in the luxury sector truly represent a convergence of technology, creativity, and consumer engagement, and by embracing these new opportunities, luxury brands can differentiate themselves, reach new audiences, and create memorable digital experiences that complement their already physical offerings. However, this evolving landscape brings with it regulatory considerations and the difficulty to maintain the core values and identity of a brand throughout its NFT initiatives.

##### *c. Limits of NFTs: vulnerabilities, uncertainties and regulatory issues*

NFT offer numerous advantages for businesses operating within the luxury sector as well as customers looking to purchase high-end goods securely online; including improved authentication and provenance tracking capabilities along with enhanced marketing opportunities all backed up by strong security features provided by distributed ledger

technology. However, as with all trends, there are pros and cons to using NFTs in luxury goods markets. Some argue that using such cutting-edge technologies might make certain types of luxurious items seem too gimmicky.

### *1. Security issues*

While the digital legal landscape continues to develop, many gray areas remain. Luxury brands are already starting to come up against certain difficulties. Like every other sector, the advantages have their share of flaws and new problems, and the issues of fraud, security breaches, data loss, etc. following the increasingly popular use of digital assets such as NFTs, is an example of the need to develop and better regulate its practices. In fact, some still question or even criticize these new practices, pointing out the problems which they believe will remain and will thus continue to affect companies, brands, their customers and other stakeholders.

Some key security issues that need to be considered are:

- Counterfeiting and replication, because even if NFTs could be a solution to prevent it, it is also necessary to ensure their uniqueness and authenticity to prevent counterfeit NFTs from being sold.
- Ownership verification: security vulnerabilities or weaknesses in the implementation of blockchain protocols are possible and it can lead to potential ownership disputes or even hacking attempts to gain unauthorized access or control over NFTs.
- Wallet hacking and phishing attacks: digital wallets used to store NFTs can be hacked if not properly secured, and thus, their NFTs stolen or transferred without consent, as well as on third-party platform where some users store their NFTs.
- Privacy concerns: as NFT transactions can be recorded on a public blockchain, it can expose transaction history and associated information to the public, and as a result can be a concern for users who prefers anonymity.
- Secondary market fraud can involve fraudulent or misrepresented listings, that can deceive buyers into purchasing NFTs different from what they were represented to be.

In general, the lack of regulatory environment for NFTs and the absence of clear regulations can make it challenging to address security issues, leaving users vulnerable. However, it is of course still possible to address these security issues, if luxury brands work with reputable

blockchain platforms and marketplaces known for their security measures, but also educate consumers about the best practices to have when it comes to securing digital wallets, recognizing phishing attempts, and safeguarding private keys. It is also worth considering conducting security audits of smart contracts to identify vulnerabilities and address them proactively, to collaborate with cybersecurity experts to ensure the security of NFT-related platforms and transactions, and finally, to consider offering insurance or guarantees to protect NFT purchasers in case of security breaches or disputes. These security measures against potential threats allow luxury brands to still build consumer trust and confidence in their NFTs.

## *2. NFT value issue*

NFTs are currently the most popular and therefore developed by luxury companies which issue them exclusively at often very high costs, but whose rarity is thus guaranteed and measurable. However, some question the persistence of this value and this guarantee of stability, in the face of the dishonest uses that may result from it (gambling, illegal activities, money laundering, exploitation of the irrational desires of others, increase prices of virtual goods...).

It is important to recognize that the value of NFTs can be subjective and influenced by a combination of factors. Some NFTs have fetched significant sums, but the market can also experience volatility and price corrections. As such, the valuation of NFTs can be influenced by various factors:

- **Rarity:** an NFT representing a unique or limited-edition digital asset, and thus exclusive.
- **Perceived value:** can vary depending on individual preferences, personal connection to the digital asset, and cultural significance attached.
- **Artistic collaboration:** creations of famous artists or designers are very often worth much more.
- **Luxury brand reputation and notoriety:** they bring their reputation, heritage, and craftsmanship to the NFT spaces, and it influences the perceived value of NFTs.
- **Historical significance:** NFTs that mark cultural and historical moments or events may have more value.
- **Utility and functionality beyond ownership:** added functionality can influence value (such as access to additional virtual experiences, for example).

- Secondary market dynamics: resale prices, trading volumes, market sentiment determine the perception of value of the NFTs assets.
- Market trends and hype, FOMO (Fear of Missing Out): all of these can influence prices.
- Investment speculation: If NFTs are viewed as investment opportunities that will increase in value over time, then this contributes to price volatility.
- Technological innovation: allowing a higher value to be attributed to NFTs.
- Cultural and emotional connection: influence willingness to pay for NFT ownership.
- Longevity and sustainability: concerns over environmental impact, security, and blockchain technology affect valuation.
- Regulatory environment: Uncertainty can introduce risks that influence valuation, and thus regulation and legal framework impact the value of NFTs.

Therefore, in the luxury sector, the value of NFTs is influenced by traditional market factors but also by the intangible elements that define luxury brands. They should carefully consider the factors that contribute to the value proposition of their NFTs, as well as potential challenges.

### *3. Infringement issue*

Infringement issues related to NFTs in the luxury sector involve concerns over intellectual property rights, copyright infringement, and trademark violations when digital assets are tokenized and sold as NFTs.

The issue of intellectual property is important when considering the rise of NFTs. Indeed, as seen previously with the example of Maison Hermès and Meta Birkin, the many possible uses of the metaverse and NFTs complicate this security (games and social media, VR headsets, AI and 3D engines, design or graphics for creators, open-source code for decentralization, telecommunications networks, etc.), and due to the fragmented and anonymous nature of the blockchain and metaverse, it is difficult for brands to police. Aura, the first international luxury blockchain, was thus created with this objective of combating real and physical counterfeits but also of the NFT environment, by providing customers a guarantee of traceability, authenticity and transparency throughout the product's life cycle.

The unauthorized use of copyrighted material in NFTs is a big challenge for luxury brands that may face legal challenges if they tokenize and sell digital art, images, designs, or other creative works that they do not own the copyright to. Brands may also inadvertently infringe on trademarks if they tokenize assets including logos, branding elements, distinctive features protected under trademark law, leading to confusion among consumers and potential legal action from trademark owners. Besides, when luxury brands collaborate with artists or creators to produce NFTs, disputes over ownership and rights to the digital assets can emerge. Brands must have clear agreements to outline the ownership of the digital work and how royalties are distributed, and luxury brands need to ensure that they have the licenses and permissions from copyright holders or creators before tokenizing their works as NFTs. Transforming physical luxury products into digital assets for NFTs may raise questions about whether these digital reproductions are considered derivative works, and they should also verify that the digital assets they tokenize are original and not plagiarized or copied from other sources. If NFTs involve images or likenesses of individuals, it is necessary to consider the right of publicity protecting individuals from the unauthorized commercial use of their likeness or identity.

#### *4. Accessibility*

Furthermore, there may also be limitations on who exactly has access to these platforms given that they require user's own cryptocurrency wallets to be effective. Some issues surrounding adoption rates due to lack of education around what exactly an NTF is, and concerns over scalability and cost effectiveness when compared with traditional methods currently employed by most retailers exist. In addition, due to regulatory uncertainty surrounding cryptocurrency usage there may be legal implications associated with using them depending on jurisdiction, meaning businesses must first ensure compliance before taking advantage from any potential benefit offered through utilizing this technology. There remain some challenges associated with using this technology within luxury sectors mainly due to the lack of understanding amongst consumers leading them to feel intimidated when trying out something unfamiliar.

#### *5. Compare NFT to the bubble economy*

Some analysts liken the current mania of buying NFT assets to a financial bubble that will eventually burst. Many NFTs have already proven their value and growth potential, but not all these digital assets have the same value.

A bubble economy exists when the value of certain assets is detached from their underlying fundamentals by speculative buying, such as NFTs may have experienced during periods of speculative exuberance, leading to inflated prices. There is often hype and overvaluation of assets in a bubble economy, causing sometimes unsustainable long-term price levels, such as some NFT prices that have seen rapid increases but not always reflecting their true value. Sudden breakout possible, leading to a significant decline in asset prices, and although NFTs bring substantial benefits, there is always a risk that the market may experience a correction or decline. On the other hand, investors can follow a herd mentality, rushing to invest in assets that show high returns without fully understanding the risks, and this is what happens with NFTs that generate a large gain. of interest in particular because of the media coverage and the perceived profitability.

Thus, NFT applications in the luxury sector share similarities with the concept of a bubble economy but not all NFT initiatives are driven by speculative motives, and many luxury brands instead explore NFTs for their potential to improve brand engagement, create new revenue streams and deliver unique digital experiences. However, it remains important to ensure the sustainable integration of NFTs in the luxury industry if we want to see the long-term benefits.

## *6. Blockchain environmental issues*

Another limitation of NFTs is that the underlying blockchain technology has a significant environmental impact, and it has become a subject of concern and discussion. The luxury industry's adoption of NFTs could be challenged by it as they are increasingly focusing on sustainability and eco-friendly practices.

Indeed, NFTs are created, bought, and sold on blockchain networks that often use a proof-of-work (PoW) consensus mechanism, which requires significant computational power and energy consumption. Moreover, minting NFTs is an energy-intensive process and verifying transactions on PoW blockchains result in an important carbon footprint. Besides, NFTs derive

their uniqueness from blockchain technology involving complex calculations and energy consumption. Critics state that when digital scarcity through NFTs is created, it is ecologically unsustainable and do not align with the luxury industry's ethical and sustainability commitments. Therefore, integrating NFTs might be perceived as contradictory if the associated blockchain technology has a negative environmental impact. It is then necessary for luxury brands, if they want to maintain their brand reputation, to consider the long-term viability of NFTs in the context of changing environmental norms and regulations, to ensure that they align with evolving sustainability standards.

Luxury brands interested in incorporating NFTs should carefully assess the environmental implications of the blockchain networks and the energy consumption of NFT creation and transactions. Some solutions seem possible like choosing blockchain networks that are more energy-efficient, such as proof-of-stake (PoS) networks, or exploring offsetting strategies, or even allocating resources to environmentally friendly initiatives in order to counterbalance the impact of NFTs. It would be possible for luxury brands to align their NFT initiatives with their sustainability goals and contribute to a more environmentally conscious use of blockchain technology.

## *7. Legal regulations*

Since NFTs are still in their development phase, they lack a still well-defined legal framework, still vary from country to country, and thus a sufficiently supervised and regulated environment: criminal and civil laws, concerning security, but also trademarks, copyrights, foreign relations, popular and commercial banks, taxes, labor protection, consumers... Questions arise about their legality, their transactions and their acceptance. For example, Bitcoin is not recognized by the Chinese government. NFT artworks are sometimes used as tokens internationally and thus become part of an economic system. However, as is particularly the case in China, this is limited only to digital collections because the auctioning of NFT works of art for example depends on severe regulations aimed at prohibiting the possession of monetary properties.

NFTs are for example used as tokens in games of chance and money, and thus promote the development of gambling among younger people. This is particularly the case of the virtual reality platform Decentraland, where games such as the virtual casino ICE Poker represent a



third of daily traffic with users sometimes under 13 years old<sup>79</sup>. It is therefore necessary to succeed in better regulating these uses.

#### d. Governance

A more traditional government governance can be considered to criminalize the dark sides of the metaverse and NFTs, but it is often subject to jurisdictional disputes, due to cross-border interactions, in addition to the difficulty to keep up with the rapid development of the metaverse for legislators.

Despite the issues and challenges, NFTs still offer great promise in improving customer experience and increasing overall efficiency of supply chain processes, and thus sales volumes. They require additional investment and more governance, but the returns could be far beyond those achievable via other methods currently utilized today, making them undoubtedly worth considering. Governance of NFTs in the luxury sector involves frameworks and practices to ensure a responsible and ethical integration of NFTs into luxury brand strategies. It is essential to develop more control and fairness to give more legitimacy and trustworthiness into the virtual space and NFTs. It can be done through a collaborative governance framework considering the technology and its functioning but also the laws, the markets and the social norms, that will support those new changes and secure them for users. NFTs can be used to compare metaverse platforms to each other on the part of users, who are thus based on their experience, the evaluations and opinions of others as well as on the value of the content and services offered. These possible comparisons can cause platforms to progress by wanting to outperform the competitor as well, on topics such as security and governance in general.

Luxury brands should be transparent about the creation, ownership, and provenance of NFTs, and clear guidelines should be established to address intellectual property rights when it comes to NFTs. The governance framework should prioritize data security and user privacy to protect information of NFT purchasers and collectors, and to secure platforms. Uphold ethical marketing practices when promoting NFTs is also important. Claims about the rarity, value, or potential returns of NFTs must be based on accurate information, to avoid misleading or exaggerated statements. Clear explanations of what NFTs are, how they work, and what are

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<sup>79</sup> Decentraland, <https://decentraland.org/>

their risks and benefits is also a condition, as well as addressing technical issues, aiding with digital wallets, and resolving any disputes that could arise. Moreover, to collaborate with relevant regulatory bodies to ensure compliance with legal requirements should involve discussions about taxation, consumer protection, and anti-money laundering measures. Ethical considerations are also important to consider in NFT governance in the luxury industry, since brands should assess the impact of their NFTs on cultural heritage, diversity, and potential exploitation of creators. It is only by considering this governance that luxury brands can offer NFT initiatives that truly align with their brand values and contribute positively to the industry.

#### e. Promises and predicting outcomes

In the coming years, luxury brands should be able to use different forms of NFT to improve brand equity, image and loyalty, to be fully integrated into the digital world, to work on customer engagement thanks to different touchpoints, to offer new topics, and thus to enhance benefits. Here are some encouraging aspects of NFTs:

- NFT games: they induce motivation and thus influence the attitude and behavior of players while stimulating activity and adherence. Luxury brands, as some have already begun to do, offer content transforming player interactions, improving their relationship with brands and making them become real players in brand communities.
- Programmable interactive NFT: consumers can co-create NFT works with their brands and relatively easily share the economic benefits derived from these works through interactive algorithm crowdsourcing technology. For example, during Chinese New Year, Red Hole Digital Collection came up with "Meta Fireworks". Consumers could buy fireworks on the metaverse through the programmability of smart contracts and their blind boxes, or even combine them together to get new, rarer and better ones. All these fires eventually composed a large piece of digital art, "Fireworks Universe", where consumers were true active participants of the brand and not passive recipients, thus increasing their loyalty to the brand. Moreover, NFTs facilitate collaborations between luxury brands and digital artists, creators, and even technologists. Innovative and boundary-pushing creations are invented and attract a diverse audience.
- NFT avatar: they offer different features like social ones (low-profile status, targeted circles) but also like entitlement ones (access to product discounts, real-world gifts, or virtual-world events, etc.). These avatars have functional benefits based on consumer

needs, brand equity and product selling points, that enhance the value of the brand and favor the buzz often generated around it.

- NFTs give luxury brands the opportunity to diversify their product portfolio beyond physical goods. Exploring different types of NFT offerings, such as virtual fashion, digital accessories or virtual real estate, open new revenue streams and allow to open new applications and possibilities of innovative use, related to the trades, but also to the products themselves.
- New services: the lifetime annuity on a virtual property which is for example of great interest to brands and tends to develop in view of new environmental issues and consumer preferences. Indeed, the second hand is very popular, but a brand does not receive anything on its resold products. With NFTs, it is easy to link a contract to it so that with each resale, a part comes back to the brand.
- NFTs establish digital ownership and exclusivity over unique digital assets that luxury brands can leverage to provide their consumers with a sense of exclusivity and prestige.
- Luxury brands position themselves as innovators within the industry by integrating NFTs and differentiate themselves from competitors.
- Luxury brands extend their reach to global audiences without the constraints of physical distribution thanks to NFT, expanding its international presence, and they also introduce new revenue streams in addition to the traditional product sales.
- NFTs provide an opportunity for luxury brands to tell stories about their heritage, craftsmanship, values... They attach narratives to NFTs, increasing the emotional connection between consumers and the brand.

Overall, the success of NFT initiatives in luxury depend on factors like technological advancements, consumer acceptance, regulatory developments, and the ability of brands to balance correctly between innovation and brand identity.

## **VI. DISCUSSION AND IMPLICATIONS**

### **A. Discussion**

NFTs are clearly the topic of the moment, and luxury brands measure their scope and benefits., and the various analyses and results have allowed to draw some conclusions.

It concerns both consumers and the luxury industry since each plays a role with its own expectations. But the added value of this world has not yet been found since it is still a turning point to get involved in it. Luxury brands, and especially during the Covid-19, have accelerated their digitalization to improve customer experience which now goes beyond the in-store experience. If the targeted consumers, i.e., gen Z, is still not totally ready to take the plunge, in any case the idea of living unique and fun experiences linked to digital, video games and virtual reality interests them. But the world is also made up of relatively different countries with their own purchasing practices and habits, and some are more sensitive to these new technologies such as the Asian and American continents, which are multiplying NFTs projects linked to the luxury industry.

According to Morgan Stanley, the Metaverse will represent 10% of the total revenue of luxury brands, within 10 years<sup>80</sup>. It seems fair to assume that it is not just a trendy gimmick doomed to disappear, and not getting involved in the Metaverse would be a strategic mistake that could penalize luxury brands by becoming obsolete or late. To take full advantage of it, the virtual and the real world should find ways to coexist and complement each other to benefit from the best of both.

### **B. Managerial Implications**

Managerial implications can help guide Luxury Houses in their decision-making processes regarding the integration of NFTs into their business strategies, and where each brand's approach will depend on its unique identity, customer base as well as its industry landscape.

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<sup>80</sup> *Metaverse: a \$50 bln revenue opportunity for luxury – MS*, by Reuters, 2021  
<https://www.reuters.com/article/global-luxury-metaverse-idAFL8N2S73MG>

Luxury brands should start by carefully assessing the alignment between their brand identity and the concept of NFT before investing in it. They must have a comprehensive understanding of their target audience's preferences and expectations for digital ownership and exclusivity. Another issue is that luxury brands must maintain the authenticity and heritage of their products while successfully adopting these innovative technologies. This balance is necessary to ensure that the integration of NFTs enhances the brand's value proposition rather than diluting it. Educating consumers on the concept of NFTs and digital property is also critical to help bridge the knowledge gap and build trust among consumers who are not all familiar with this technology. Moreover, it is mandatory to consider the environmental impact of NFTs in terms of energy consumption and carbon footprint, to align with growing consumer demand for sustainability in luxury goods. Collaborations with artists or other NFT platforms also facilitate the creation of unique and exclusive digital offers that resonate with the clientele of Luxury Houses. Furthermore, NFTs are a new way to engage customers and create immersive brand experiences, but luxury brands should also be aware of the potential risks associated with NFTs, such as counterfeiting, copyright infringement or other fraudulent schemes. Thus, risk management strategies and protective measures can protect brand reputation and maintain brand trust. On top of that, thoroughly assessing the long-term viability of integrating NFTs into their offerings is also important and requires monitoring market trends, as well as consumer sentiment and technology developments to ensure these initiatives are still relevant and useful. Ultimately, luxury houses must prioritize the data security and privacy of their users when dealing with NFTs, through the implementation of data protection measures and transparent data usage policies, which ultimately builds consumer confidence in these digital property platforms.

### **C. Limitations of the study**

As it is evident that no paper would have no limitations, it is important to note those that this work may have.

Indeed, the results of the case studies might not be as generalizable as we would like to the luxury sector more broadly because each case is of course unique and has its own contextual circumstances which might not apply in the same way to other entities. Additionally, because the cases are complex, establishing causal relationships and links can be difficult, as some factors may not have been considered in the study and yet could influence the results. Because

these case studies rely on qualitative data, the ability to perform certain types of quantitative analyzes and statistical tests was completely limited.

Besides, the number of cases studied remains limited to nine, in particular because of the time, the resources or the availability of these examples, which affects the representativeness of the sample and may not capture all the diversity of the phenomenon studied that are the NFTs. Just as they may not provide enough data to fully develop or refine complex theoretical frameworks. It is possible that I have additionally brought my own biases and interpretations to the selection and analysis of these examples, perhaps affecting the objectivity and credibility of the results, although I have tried to remain as objective as possible, while remaining based on information. Finally, since real-world contexts are dynamic, they can change over time and so the information gathered during this thesis may become outdated or irrelevant as the context evolves, and may limit the ability to validate results, reducing thus the robustness of the conclusions.

However, it should be emphasized that while the case studies indeed have limitations, they still offer valuable and contextual insights and greatly contribute to a deeper understanding of the NFT phenomenon and its applications to the luxury sector. It is simply a matter of being aware of these limitations and considering them fairly when considering the results and conclusions of the research.

## **VII. CONCLUSION**

Luxury Houses should strive towards educating their customer base about why they choose certain technologies over others, thereby helping build trust between themselves and those who buy or invest in what they produce. By doing all this we will see a more secure future where people understand and appreciate how it play key roles within our lives especially ones related directly to luxury consumption, digital art and collectibles. Overall while there may still some uncertainty surrounding exactly what role NFT play within our current economy, many experts agree that there are huge potential benefits waiting once all stakeholders involved understand how best utilize them. If luxury brands keep their true core values behind why people buy luxury in the first place, then, trend towards incorporating more advanced technologies like blockchain into everyday operations could continue to grow exponentially in the next years. Ultimately, only time will tell if this world of possibility and excitement becomes mainstay within the luxury industry or just another passing fad.

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