NFTByBrands

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NFTByBrands: A Value Identification Framework for Analysis and Design of NFT Initiatives

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Abstract

Non-Fungible Tokens (NFTs) are digital certificates of ownership that can be attached to virtual or physical assets. Recently, they have become increasingly popular, especially with the advent of metaverse, virtual spaces shared and accessible online. Many brands are launching NFT initiatives for various reasons including retaining customers, developing new revenue streams, or demonstrating that they are keeping up with the latest technological advances. As for any product or service, to increase the likelihood of success of NFT initiatives, it is key to design them so as to provide value to the targeted audience. In previous research, the notion of "value" of NFTs has been essentially seen through the lenses of financial return. However, NFT initiatives can provide other types of values to the targeted audience. This paper presents the NFTByBrands framework that can be used to identify the potential types of values that can be delivered by brands through NFT initiatives, and can help guide brands in this endeavour. It is built upon customer perceived value theory, and an analysis of 50 NFT initiatives launched by 42 brands. The framework can also be used as a basis for further research on the value of NFTs, and a research agenda is proposed in the paper.

Keywords: Non-Fungible Tokens (NFTs), perceived value, blockchain

Introduction

Non-Fungible Tokens (NFTs) can be described as digital certificates of ownership for unique and non-interchangeable assets, either digital or physical [25, p.220; 31, p.1]. The certificates are stored and managed on blockchain platforms like Ethereum, making proof of ownership, ownership transfer and authenticity checking possible without a trusted third party [24]. After the disruptive arrival of cryptocurrencies such as Bitcoin [66, p.9], the NFTs market also shows an exponential growth. A report by Grand View Research states that the market for NFTs is estimated to be $20.44 billion in 2022, with a compound annual growth rate of 33.9% from 2022 to 2030 [30], making it an increasingly interesting playground for brands.

Many brands like Nike, Balenciaga, Burger King and Lamborghini, to name a few, launched NFT initiatives to capitalise on this new technology. The potential benefits expected from these initiatives include increasing brand awareness, generating additional profit, increasing customer loyalty, finding new audiences and customers, stimulating interactions between the brand and its customers, raising social responsibility and promoting new product lines [13, p.89].

To design successful initiatives helping to achieve some of these benefits, it is key for brands to understand and clarify the value they want to offer to their new or prospective customers through the NFT initiatives they design, as for any product/service they would offer. A number of projects seem to assume that NFTs and cryptocurrencies necessarily deliver value thanks to their inherent authenticity and scarcity properties [79, p.474]. This hypothesis is however not always verified. For instance, [70, p.457] showed that in the CrypoKitties game that relies on NFTs, the rarest game tokens were quickly devalued due to a lack of people playing the game. In addition, the failure of certain initiatives [48] in which

NFTs are issued in a limited number for unique assets suggests that these characteristics are not sufficient for the initiative to deliver sufficient value.

As NFTs are new technologies, research on the topic is still limited. Most research on NFTs focus on the technical, legal, or economic perspective [6, p.215; 26, p.1261; 76]. In existing work, the value or "success" of NFTs is mostly seen through the volume and price at which NFTs are traded in the secondary market [6, p.215; 15, p.49; 22, p.102096; 23, p.102097; 57; 64, p.335]. However, from a marketing perspective, while the financial value is certainly of importance, the value that customers can perceive (and hence that can be offered) through NFT initiatives is a multi-faceted construct that includes a broader set of dimensions (e.g. hedonic, social and altruistic values). The foregoing represents a gap in the literature and demonstrates the need for more in-depth research on the different types of values that can be offered by brands through NFT initiatives. Understanding and conceptualising these types of values is key for brands to design successful initiatives delivering value and attracting interest from the targeted audience. It is also particularly important due to the complexity and costs involved in the development of NFT initiatives. Indeed, there is a need to acquire or create underlying assets for the NFTs and to develop and maintain the information systems components that are required to issue them and/or use them (e.g. developing a game based on NFTs like Louis Vuitton did [55]). These systems need to deliver value to the users properly, as user perceived value influences their adoption [41] which in turn can affect one or several value types that a given NFT initiative provides.

The objectives of this research are therefore to (i) provide a multifaceted analysis of the value that NFT initiatives can deliver to individuals, (ii) develop a proposed value framework helping practitioners in the design of NFT initiatives having the potential to deliver the desired types of value, and (iii) highlight important research questions related to this multifaceted conceptualization of value of NFT initiatives.

To provide a first conceptualization and understanding of the value that brands can potentially offer to existing or prospective customers with NFT initiatives, we adopt the experiential perspective of customer perceived value proposed by Holbrook [32]. We collect and analyse a set of 50 NFT initiatives launched by brands through these lenses and explain for each the potential value types they can deliver, based on the independent assessment by the authors of objective criteria, analysed under the lens of relevant theories and studies in the fields of marketing, finance, economics, philosophy and psychology. As perceived value depends on the perceiver, we aim to be as broad as possible in the value types that can potentially be perceived by final users for a single NFT initiative. The results of the analysis are structured in the shape of an adaptation of the framework proposed in [32], for the case of NFT initiatives, called NFTByBrands. It explains how each value type can potentially be offered through such initiatives. In addition, we propose a set of classification criteria that can help practitioners assess whether a given initiative has the potential to deliver a certain type of value. The proposed framework is, therefore, designed for brands aiming to launch a specific NFT initiative, and opens many research avenues by highlighting the various theoretical streams linked to NFT initiatives. Building on decades of research on value and customer psychology, NFTByBrands is the first framework analysing NFT initiatives with a multi-faceted view, in the holistic spirit of [32]. Its structure and theoretical foundations, grounded in objective observations of a set of NFT initiatives, pave the way to many follow up research on each of the eight types of value it describes.

The remainder of the paper is organised as follows. First we introduce the background and related work on NFTs, their value and customer perceived value. Then, we present the methodology applied to build the proposed framework. After that, we carry on the methodology and present the resulting framework and its design. We then apply it to two initiatives that were not part of our sample to illustrate how it can be used and the advantages that it brings. Then, we discuss our results and their limitations. Finally, we propose a further research agenda before summarising our contributions in the conclusions.

Background and related work

Non-Fungible Tokens for brands

Non-Fungible Tokens (NFTs) can be described as digital certificates of ownership for unique and non-interchangeable assets being either digital or physical [25, p.220; 31, p.1]. The certificates are stored and managed on blockchain platforms like Ethereum, making proof of ownership, ownership transfer and authenticity checking possible without a trusted third party [24]. Different types of NFTs can be created. According to the NonFungible Corporation Annual report [58], NFTs can be classified into the following segments: Art, Collectibles, Utilities, Video Games and Metaverses. Recently, many individuals, brands, and other organisations started NFT initiatives across a wide range of industries and sectors, including but not limited to (virtual) real estate [22, p.102096], certificates of various kinds, luxury goods and clothing [35, p.337], consumable goods, digital art [27, p.402; 40, p.19; 78, p.21], event ticketing [67], entertainment and catering.

The ecosystem around NFTs is made of several types of stakeholders including corporations (established brands focused on non-NFT businesses) and NFT owners [7, p.1]. In this context, numerous corporations have issued NFTs related to the brands they own and manage. The potential benefits expected from these initiatives include increasing brand awareness, generating additional profit, increasing customer loyalty, finding new audiences and customers, stimulating interactions between the brand and its customers, enhancing social responsibility and promoting new product lines [13, p.89]. For example, Nike issued unique and virtual pieces of sneakers that can be worn in the metaverse [29]. Other brands issued NFTs providing several services and/or benefits to the owners, not only in virtual worlds but also in real life. For example, Burger King issued a set of NFTs representing ownership of small videos linked to several celebrities [53]. The NFTs can be collected by scanning QR codes added to their “Keep it Real” meal boxes (in-restaurant). When someone collects the NFTs for three videos of the same celebrity, they can unlock a fourth NFT that provides several advantages/services to the owner, including: free burgers for a year, derived products signed by the celebrity, and a phone call with the celebrity.

NFT initiatives

From a technical perspective, the NFT is only the digital certificate hosted on a blockchain platform. When brands issue NFTs, there is always the ownership certificate, but also the underlying asset and a potential set of other digital or physical objects and services for the party acquiring the ownership. In this paper, we refer to ‘*NFT initiatives’* as, altogether, NFTs (as digital ownership certificates), underlying assets and complementary services or objects. In this paper, we focus on the value that brands can offer to their prospective or existing customers through these initiatives.

As this value does not only reside in the technical characteristics of NFTs but also in the underlying assets and complementary products/services, we use the NFT initiative as a unit of analysis, regardless of whether an initiative includes a single NFT or a collection of NFTs. This approach is consistent with the “total” or “whole” product described by Levitt [47] and McKenna [51], who explain that to compete in their market, companies do not only offer a core product but this core product augmented by side attributes and add-ons.

Offering customer value with NFT initiatives

Existing work on the value or "success" of NFTs mostly focuses on the volume and price at which NFTs are traded in the secondary market [6, p.215; 15, p.49; 22, p.102096; 23, p.102097; 57; 64, p.335]. Their scarcity and authenticity characteristics are put forward to explain how they can drive customers behaviour [72]. Although NFTs can be used as investments for individuals looking for financial return [69, p.31949], they can be used for many other purposes. We argue that the value provided by and the success of NFT initiatives should not always and only be evaluated in terms of trade volumes, trading prices and financial profit. This depends among others on the objectives motivating the launch of an NFT initiative by the brand, and on the targeted audience. For instance, the Burger King initiative discussed above aims to increase customer loyalty and engagement [36]. In this context, the success of the initiative is not only seen through the amount of direct and indirect sales of tokens. The fact that NFTs customers get for free are not traded in high volumes and at incredibly high prices like the CryptoPunks collection [64, p.335] does not imply that the initiative does not reach its goal or does not provide value to the customers.

To increase the likelihood of success of an NFT initiative launched by a brand, the initiative should seek to provide value to the targeted audience. In the example of Burger King, the individual NFTs that one receives with their meal might not provide much value on their own (customers basically get ownership over a small video of a celebrity, with some Burger King branding). However, collecting the videos might provide value for some customers as it can be seen as a game, and the rewards they can get when they complete a collection (e.g. one year of free burgers) can provide different types of values . Someone who loves Burger King could be happy to keep the final NFT and get *utility* value from it. Someone else might be happy to get the gift in the hope to sell it to someone that loves

Burger King, hoping to make financial profit. Someone else might find value in the pride that (s)he gets from having “free burgers” when walking in a Burger King.

In order to design NFT initiatives providing value to the targeted audience, it is key for brands to first understand and clarify the potential value they can and intend to offer through the initiatives, using NFTs. Understanding the value the company intends to deliver with its initiative provides better information for technology choices and initiative design. However, as discussed earlier, the value of NFTs is mostly seen through the lenses of financial return and based on their scarcity and uniqueness [18; 23, p.102097]. To this date, there is no broader conceptualization of the different types of value that can be offered through NFTs and NFT initiatives. Such a conceptualization would help brands launching NFT initiatives with clearer guidance, and also point out interesting research avenues for the NFT research community.

Perceived value and Holbrook’s framework

To bridge this gap and provide a first conceptualisation of the value that can be provided with NFT initiatives, we adopt the multi-faceted perspective of Holbrook’s perceived value framework [32].

Creating customer value is at the heart of the marketing discipline definition [4]. Indeed, a primary concern of marketers is to create and deliver superior value to achieve competitive advantage [80, p.139]. A widely accepted definition of value is "*the consumer's overall assessment of the utility of a product based on perceptions of what is received and what he is given*" [82, p.2]. Among the various conceptualizations of value in marketing, the one of [32] is considered by many researchers to be one of the most relevant [45, p.650; 50]. It is considered as a paradigm in value research [28, p.724], aimed to provide a systematic and integrated approach to conceptualising value [32] by combining theories from different disciplines and adopting a holistic approach in its conceptualization. As there is limited knowledge and research on the value that NFTs can provide, adopting such an approach is particularly relevant for our objective to propose a first conceptualization of the potential value that can be provided through NFT initiatives.

Customer perceived value results from the interaction between a subject and an object of value [32]. In other words, the value perceived by customers depends on how that customers respond to the product/service and what their goal is. It is also relative to the individual perceiving the value and the situation in which the value is perceived. While we do not claim to be able to predict which value type a particular individual will perceive from an initiative, brands can still design it to put forward certain characteristics fostering certain value types. To characterise the different types of value a product or service can offer, the framework proposed in [32] defines three main axes: self-oriented versus other-oriented, extrinsic versus intrinsic, and active versus reactive (see Table 1).

Table 1. Perceived Value Framework (adapted from [32], p.12])

		Extrinsic	**Intrinsic**
Self-Oriented	**Active**	Efficiency	Play
	Reactive	Excellence	Aesthetics
Other-Oriented	**Active**	Status	Ethics
	Reactive	Esteem	Spirituality

A perceived value is self-oriented when customers aim to obtain value for themselves and when they do not care about the reaction of others. For example, when a customer thinks that a flower is beautiful, it corresponds to a self-oriented value regardless of whether others think the flower is ugly. In contrast, a value is considered other-oriented when a customer perceives a value based only on the reactions of others. For example, if a customer buys a very expensive painting just to show personal wealth, the perceived value of the painting results from the admiration of others.

An object has an extrinsic value when it is valued not for itself but for what it can help achieve. Money usually has extrinsic value because it is valued not (only) for itself but mostly for what it can help to acquire or achieve. On the other hand, an object has an intrinsic value when it serves no other purpose. A beautiful drawing can be purchased for itself without serving any other purpose.

An object possesses an active value when the value results from the customer's use of the object. This requires the customer to take voluntary action. For example, the value of a game arises when the customer is playing. In contrast, an object has a reactive value when the value does not require the customer to do anything. For example, a stock market investment retains its reactive value until the customer decides to sell it, a piece of art has reactive value because its very presence makes it beautiful.

A major advantage of the framework presented in [32] is that the three axes, when considered as dichotomies, lead to logically distinct value types that all together represent "the most comprehensive approach on the value construct" [68, p.1]. Although the value types are distinct, they are correlated and a single object can have different value types (what [32] refers to as "compresence"). For example, a painting can be beautiful (aesthetic value), but also show the wealth of its owner helping him have a certain image (*status* value) and its purchase goes to a charitable association (*ethics* value).

The original framework has the ambition to suit all kinds of value objects ("*a manufactured good, a service, a political candidate, a vacation destination, a musical concert, a social cause, and so on*" [32]). Therefore, it carries a strong philosophical nature that makes it difficult to apply concretely by practitioners. Moreover, due to the many technological novelties, advances in research, and new business practices since the creation of the original framework, researchers highlight the need to adapt the framework to reflect these advances [45, p.650] and propose new names for the original value types. For instance, [28, p.724; 45, p.650] adapted the framework to more specific value objects (incorporating for example ecological value or perceived privacy risks). In this paper, we follow a similar approach and propose an adaptation of the original and more abstract framework of [32] to NFT initiatives as value objects.

Methodology

Framework design

To design our value framework, we build on [65, p.4543] and adopt a three steps process summarised in Figure 1.

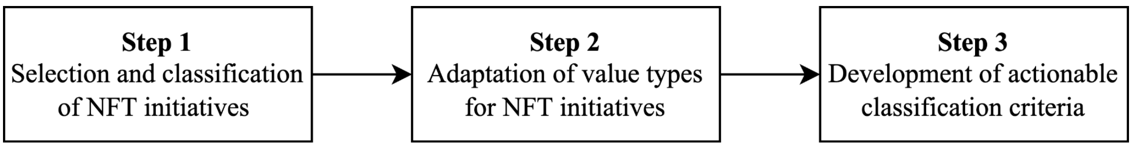

Figure 1. Framework design process

Step 1: Selection and classification of existing NFT initiatives

To reach our research objectives, we adopt an interpretive approach [39, p.67] and apply the framework developed in [32] on multiple case-studies. At first, we select initiatives launched by brands, belonging to every known NFTs category [58]. Then, for every selected initiative, each author separately reasoned to identify objective characteristics of the initiative (e.g. “This is a collection.”, “It can be used in a game.”, “It can be shown as a profile picture” etc.) and, with the help of past literature about those elements, classified the initiative along the axes and within the eight value types of [32].

Consistently with the original framework in [32], our analysis does not adopt the benefits minus costs trade-off standpoint of Zeithaml [82, p.2], but rather the eight experiential value types, that do not emphasise on costs [28, p.724] such as the NFT price or the effort needed to acquire the NFT. While price and effort concerns are important considerations for NFT initiatives, their impact is therefore not considered in this study.

Following the perceived value theory, an initiative could carry several value types for different reasons. Each author could then create several classifications for a single initiative with explanations for every classification. After analysing the initiatives in isolation, the authors confronted their point of view with several rounds of discussion. The dataset with the objective characteristics of initiatives and the details of the analysis after majority consensus among the authors is available online [21].

Step 2: Adaptation of value types for NFT initiatives

We analyse the eight value types derived from the classification in step 1 with regards to the characteristics of the classified NFT initiatives. We compare the characteristics of the initiatives classified under a specific value type to the original value type description in [32] and propose some adaptations to the original framework. We propose clear definitions for every value type of the adapted framework. The outcome of the second step takes the shape of 8 value types based on the definitions of [32] but adapted to the context of NFT initiatives.

Step 3: Definition of actionable criteria

To help make the framework more practical and easy to use, we define a set of actionable criteria for each value type that help define whether a given initiative carries the potential to deliver the considered types of value.

Framework illustration

To illustrate how researchers and practitioners can use the framework, we apply it to two additional NFT initiatives. For the chosen initiatives, we use the criteria defined in step 3 to identify the potential value types that it provides. We then provide a high-level view of the potential value types proposed by the initiative, and suggest improvements that could be considered to enhance the value potential of the initiative.

Framework Design

This section presents the application of the three steps defined in the methodology and integrates the results in the form of the NFTByBrands framework. The framework provides 8 value types, and for each, an adapted definition and set of actionable criteria to determine whether an initiative has the potential to provide the value type at hand.

Step 1: Selection and classification of NFT initiatives

In order to analyse the potential value that NFT initiatives could provide to their users, we adopted a multiple case study research method [81]. Considering the limited scientific literature on NFT initiatives in light of their recent character, we selected case studies and gathered data on them mostly from grey literature. Secondary data were collected in June 2022 from three main sources: (i) announcements of initiatives by brands retrieved through the Google search engine, (ii) NFT main marketplaces such as opensea.io, and (iii) press articles about NFT initiatives retrieved through Google News. In our sample, we chose to exclude NFT initiatives launched by individuals and only consider brand initiatives, as we aim to help the latter. Investigating the differences (if any) with initiatives launched by individuals constitutes a lead for further research. In addition, we excluded initiatives that do not imply the creation of a NFT, such as NFT marketplaces.

As the objective of NFTByBrands is to offer an initial view on the value types an NFT initiative can provide, and considering that the number of launched NFT initiatives is large and growing fast [30], we stopped collecting initiatives when we observed redundancy in their main characteristics and once we had initiatives in every NFT category identified in [58]: Collectibles, Art, Video Games, Metaverse, Utilities) and types (purely digital vs. paired with a physical item). We also made sure to have NFT initiatives amongst a wide range of sectors.

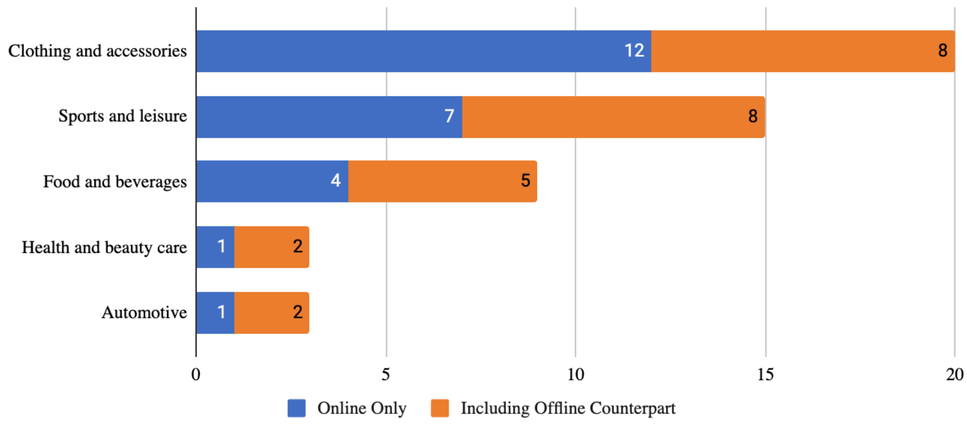

Figure 2. NFT initiatives sector distribution, adapted from [65, p.4543]

The sample includes 50 NFT initiatives from 42 different brands. The most represented sector is "Clothing and accessories" (40%), followed by "Sport and leisure" (30%), "Food and beverages" (18%), "Health and beauty care" (6%) and finally "Luxury vehicles" (6%) as presented in Figure 2. We also observe that the distribution between the initiative offering an offline (often physical) counterpart accounts for half of the total sample size and about half of each sector category.

Regarding NFT types, according to the classification of [58], 15 initiatives (29%) of our sample were "Art", 15 (29%) were "Collectibles", 14 (27%) were "Utilities", 5 (9%) were "Video Games", 3 (6%) were package containing NFTs from "Metaverses" (see Figure 3).

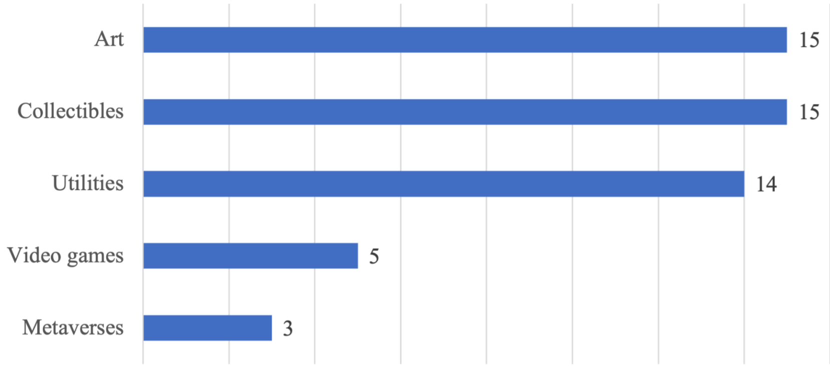

Figure 3. NFT initiatives classification, adapted from [65, p.4543]

As explained in the methodology section, the selected initiatives are classified according to the three axes and eight value types defined in [32]. The reader can find in the appendix [4] a table containing our classification of each NFT initiative, the objective criteria and literature used for classification.

Step 2 and Step 3: Adaptation of value types for NFTs and Definition of Actionable Criteria

Once all the NFT initiatives classified along the three main axes, we could derive the eight value types of [32], originally named *efficiency, excellence, play, aesthetics, status, esteem, ethics,* and *spirituality*. Table 2 presents the framework with the adapted value types definition and classification criteria, which are explained in detail in the subsections that follow.

Table 2. NFTByBrands framework for analysing value of NFTs initiatives

		Extrinsic	Intrinsic
Self-Oriented	Active	**Utility** *NFT initiatives carry "utility" value when they are used to obtain privileges (access to an event, fast lines, special services…) and/or various other products.* **C1**: The NFT gives access to physical or digital products or services; and/or **C2**: The NFT gives access to an event; and/or **C3**: The NFT gives access to privileges	**Play** *NFT initiatives carry "play" value when they are used or acquired for fun.* **C1**: The NFT is a component of a game; and/or **C2**: The NFT is part of a collection; and/or **C3**: The NFT encompasses "surprise" components; and/or **C4**: The NFT can be materialised in a playful manner
Self-Oriented	Reactive	**Investment** *NFT initiatives carry "speculation" value when they are used as reassurance about the monetary assets of their owner.* **C1**: The NFT can be traded; and **C2**: The NFT proves the authenticity of a luxury item; and/or **C3**: The NFT proves the quality of an item	**Contemplation** *NFT initiatives carry "art/memories" value when they refer to something pleasurable to perceive with the senses.* **C1**: The NFT underlying asset is a piece of art; and/or **C2**: The NFT underlying asset depicts a memorable moment
Other-Oriented	Active	**Status** *NFT initiatives carry "status" value when they can be shown to others in a flattering manner.* **C1**: The NFT ownership can be shown to others via social media, game platforms, or in physical environments; and **C2**: The NFT enhances the public image of the owner	**Charity** *NFT initiatives carry "Charity" value when their usage or acquisition helps the realisation of a good deed.* **C1**: When the NFT is sold, the money goes to charity or helps a charity organization to perform good deeds; or **C2**: The issuing organization commits to a socially good action when the NFT is bought
Other-Oriented	Reactive	**Rarities Ownership** *NFT initiatives carry "possession of rarity" value when they are publicly recognised as rare.* **C1**: The NFT underlying asset has unique meaningful characteristics; and **C2**: The supply of issued NFTs is limited to provide a sense of scarcity; and **C3**: The underlying asset is presented as rare and desirable	**Community Belonging** *NFT initiatives carry "community belonging" value when their possession identifies the owners to a specific community.* **C1**: The NFT is centred around a new or existing community; and **C2**: Ownership of the NFT helps reinforcing the feeling of belonging to the community

Utility (originally efficiency)

Efficiency refers to the self-oriented, extrinsic, and active value type. In Holbrook's words, "the active use of a product or consumption experience as a means to achieve some self-oriented purpose" [32]. Some NFT initiatives offer benefits, prizes, physical or virtual counterparts to their owners. Even though the final goal of the user is to obtain physical or virtual counterpart or privileges, or to access exclusive events or experience, the purchase of the NFT serves as the means to reach that goal. This can be interpreted through the lenses of the means-end chains theory [63, p.227] where the value of an action (i.e., purchasing the NFT) only holds because it helps achieve other goals (i.e. obtain advantages or prizes). When the owner of the NFT is the one that can benefit from the counterpart, we can consider that the NFT initiative holds therefore a self-oriented, extrinsic and active value type.

When discussing the *efficiency* value type, [32] originally put a strong emphasis on input/output calculus involved. More specifically, he highlighted how objects with *efficiency* value can reduce the time spent on unpleasant tasks.

However, the possibilities for gifts that a customer can receive thanks to an NFT are not only related to tasks' cost reduction such as time or effort cost. A first category of gifts are access to exclusive events, such as Guerlain, the French perfume brand, granting its NFT holders access to the natural park site of Vallée de la Millière. Second, the gifts may be highly personalised customer services, as in the case of Prada, Cartier or LVMH. In addition, they could get VIP status or benefits during an event (faster entry, food and beverage vouchers, free merchandise) as done at Coachella music festival. It could also be physical goods, like the Lamborghini sculpture or the Coca Cola special edition refrigerator. In addition, NFTs can grant access to other NFTs, as in the case of Burger King, which allows owners of the three NFTs in its collection to obtain a fourth NFT. Another example is priority in the purchase of other NFTs or tickets for real life events, as with Roland-Garros tennis tournament.

Looking at the literature on NFTs, the *efficiency* concept is in this case really close to the *utility* NFT category [61, p.9]. We therefore rename in our adapted value framework *efficiency* as *utility* to remain in line with this literature and adopt the following definition: **NFT initiatives have potential *utility* value when they are used to obtain privileges (access to an event, fast lines, special services…) and/or various other products.**

We propose the following criteria to classify NFT initiatives as potentially providing *utility* value:

- C1: The NFT gives access to physical or digital products or services; and/or
- C2: The NFT gives access to an event; and/or
- C3: The NFT gives access to privileges.

The products, services, events and privileges mentioned in the criteria can be either physical and/or digital and available in virtual environments. Among these criteria, one is sufficient to consider that the initiative has the potential to provide *utility* value. An initiative that fulfils multiple criteria increases its chances to provide *utility* value.

Investment (originally, excellence)

Excellence refers to the self-oriented, extrinsic, and reactive value type. *Excellence* is when "one admires some object or prizes some experience for its capacity to accomplish some goal or to perform some function" [32]. This value type, by being mostly directed towards ourself with an extrinsic interest, is close to the previous one except that here the value is reactive. This means that the extrinsic value of the NFT initiative is perceived prior to any action, by anticipation of the goal it can help reach when the action will be taken. Holbrook originally illustrates this interpretation with *quality* (for example of a very sharp knife or a very speedy Ferrari that we could admire without "slashing something" or "breaking the traffic laws" [32]). However, the interpretation of this self-oriented/extrinsic/reactive value type is also really close to the money investment concept. Motivations to invest include, a calculation component (expecting to grow our capital with a later increase in value of our investment) and/or a foresight component (ensuring that our capital is preserved to be used in the case of unforeseen contingencies or to improve our well-being by having things we cannot afford now) [17, p.21; 37]. The calculation echoes many NFT initiatives presented as financial investments: carrying a high growth potential in their monetary value due to their scarcity such as Lamborghini "Spacekeys" and luxurious characteristics (e.g. designed or promoted by famous artists, that acts as endorsement of the value of the NFT [9, p.198] such as the Adidas' "Into the Metaverse" collection). On the other hand, the foresight component echoes the NFT initiatives that acts as reinsurance about the value and authenticity of luxury goods (e.g. authenticity certificates at Prada or quality certificates at Alfa Romeo).

To properly represent these NFT specificities, the *excellence* value type is renamed as *investment* and has the following definition: **NFT initiatives have potential *investment* value when they are considered as an investment, either with calculation or foresight motive.**

We propose the following criteria to classify NFT initiatives as providing *investment* value:

- C1: The NFT can be traded; and
- C2: The NFT proves the authenticity of a luxury item; and/or
- C3: The NFT proves the quality of an item.

In these criteria, C1 is required for any NFT initiative to provide *investment* value. Indeed, once acquired, if the issued NFTs can no longer be traded, the owner becomes unable to obtain any value from investment. The other criteria are not required but can further enhance the potential *investment* value provided by the initiative. For C2 and C3, we make the assumption that the NFTs are used as the primary way to authenticate the underlying assets and their owner. Initiatives can meet C3 if the NFT is used not only to prove ownership of an asset, but also to track its evolution over time. For instance, if a car is tokenized as NFT, it is possible to record maintenance and repairs interventions along the ownership certificate, thereby providing assurances on the quality of the car (more broadly, the underlying asset).

Play

Play refers to the self-oriented, intrinsic, and active value type. Therefore, it logically encompasses many leisure activities such as games, books or interactive animations [14] that are well represented in NFT initiatives (e.g. Punks Comics book or Sorare's virtual soccer game). The conception of *play* presented in [32] is indeed really close to the definition of “to play" in the Oxford dictionary: "*to do things for pleasure, as children do; to enjoy yourself, rather than work*" [60].

More subtly, for some initiatives, the *play* value type relies on collecting the NFTs. Consistently with the literature on digital collecting [49, p.543], when a customer tries to own all items (in our case NFTs) in a given collection, a hunt, a game, is created that consists of finding the remaining items. From this point of view, the acquisition of a NFT in a collection has a *play* value. Surprise is also a well-known driver of delight and enjoyment in western culture [12]. We find references to surprise in some NFT initiatives which encompass a surprise component (such as Gucci's crystal ball "surprise NFT"). In addition, augmented reality is also recognised as a good driver of enjoyment [75, p.170] by allowing to put forward the product attributes in a playful manner [33, p.82]. Some virtual clothing NFTs offer the ability to visualise the item in a playful manner, such as the Nike NFT sneakers we can visualise in augmented reality. The characteristics of the NFT initiatives classified along our axes remain consistent with the original name and conceptualisation from [32]. We therefore keep the name *play* and the following definition: **NFT initiatives carry *play* value when they are used or acquired for fun.**

We propose the following criteria to classify NFT initiatives as providing *play* value:

- C1: The NFT is a component of a game; and/or
- C2: The NFT is part of a collection; and/or
- C3: The NFT encompasses a "surprise" component; and/or
- C4: The NFT can be materialised in a playful manner.

For this value type, having any of these criteria met is sufficient to state that the initiative carries potential *play* value.

Contemplation (originally aesthetics)

Aesthetics value refers to the self-oriented, intrinsic, and reactive value type. It is close to the concept of contemplation. Studied in philosophy, pedagogy and art, contemplation occurs in self-presence [16, p.385], is intrinsic by nature as it occurs only when the unique motivation is the contemplation itself [52] and requires not to manipulate, physically or mentally, with the object contemplated, thereby leaving *contemplation* on the side of the reactive values [59, p.99]. When it comes to *contemplation*, art often comes to mind [46]. Many NFT initiatives, such as the Grammys NFTs, rely on artists for the design of their collection that can be considered as digital artwork. In addition, souvenirs can also be subject to *contemplation*. Baker [5, p.209] explains that the *contemplation* value of souvenirs arise from their capacity to trigger conscious reflection about who we are [20] and to help achieve a sense of self-continuity [11, p.669]. Some NFTs initiatives enable customers to remember good memories, like NBA's 'Top Moments', where the NFT shows some of the best moments from the league's games.

The conception of *aesthetics* in [32] is very close to the definition of beauty of the Collins dictionary: "the combination of all the qualities of a person or thing that delight the senses and mind" [19]. While [32] emphasises works of art and fashion as typical examples carrying *aesthetics* value type, the souvenir side of contemplation is absent from his analysis.

To take this souvenir aspect into account, the *aesthetics* value type is renamed as *contemplation* and is attributed the definition: **NFT initiatives potentially have *contemplation* value when they provide something pleasurable to perceive with the senses, that leads to contemplation.**

We propose the following criteria to classify NFT initiatives as providing *contemplation* value:

- C1: The NFT underlying asset is a piece of art; and/or

- C2: The NFT underlying asset depicts a memorable moment.

Although one criteria is sufficient to classify an NFT as providing potential *contemplation* value, they are not mutually exclusive.

Status

Status is the other-oriented, extrinsic and active value type. It is linked to the concept of identity signalling through psychological ownership. Indeed, as explained in [62, p.52], one of the motivations to ownership is identity signalling. By showing ownership of a desirable item to others, it acts as a signal of desirable qualities in ourselves too. Identity signalling is directed towards the perception of others about ourselves and can be done by showing off our belongings to gain a desired public image, making it inherently other-oriented, extrinsic and active. In addition, Peck and Luangrath [62, p.52] and Kim [38, p.591] also explain that when the opportunity of showing ownership is undermined, the loss of opportunity for identity signalling may lead to disinterest. Many NFT initiatives allow the NFT owner to show off the ownership of the NFT. For example the expensive Burberry NFT clothing and accessories that we can display in the metaverse. Some initiatives also provide other ways for customers to show their possessions to others, such as the NBA user profile, where you can show all your NFTs to the community. When NFTs grant exclusive access to events, customers can explain the event to others and brag about their VIP status as a result. Other possibilities are NFTs that go with a physical asset such as the Lamborghini sculpture that allow us to show off directly in real life contexts.

It is highly consistent with the original interpretation of [32], related to 'impression management'. As highlighted in [32], an expensive perfume or piece of clothes can help to convey an impression of success and impress others.

We therefore keep the *status* name and adopt this definition: **NFT initiatives potentially have *status* value when they can be shown to others in a flattering manner.**

We propose the following criteria to classify NFT initiatives as providing *status* value:

- C1: The NFT ownership can be shown to others via social media, game platforms, or in physical environments; and
- C2: The NFT enhances the public image of the owner.

Here, both criteria are required to classify an initiative as providing *status* value. C1 is required for the owner to have the ability to show it off to others. For instance, on Twitter it is possible to use a digital artwork tokenized as NFT as a profile picture, with visual cues to show that you are effectively the owner. What is important here is not only the underlying asset (e.g. the image used as a profile picture) as anyone can use the same image. What matters here is that the platform shows to everyone that you are the owner. C2 on the other hand is required because if the NFT is not "desirable" and is not perceived by certain communities as providing a certain status, then owning the NFT does not provide *status* value and neither does the initiative. To transform the public image of the NFT owner, it is necessary for the public to notice NFT ownership, making C1 a prerequisite for C2.

Rarities ownership (originally esteem)

Esteem is the other-oriented, extrinsic and reactive value type. It is close to the concept of pride of ownership for the interdependent self [2, p.216], a more reactive consequence of psychological ownership [62, p.52]. It arises when the mere ownership of an object by a subject triggers pride for the subject because it means the subject has a certain status. Ahuvia et al. [2, p.216] indicate that the objects most likely to provide this pride of ownership for social status are objects that can demonstrate wealth and/or cultural taste. They also indicate that comparison with others that do not own the same object was a major reason for pride of ownership, indicating that scarcity of the pride-object can be an important element. Contrary to identity signalling that requires explicit show-off, pride of ownership arises with the simple idea of triggering the admiration of others thanks to the object [2, p.216]. For these reasons, the concept fits really well into the other-oriented, extrinsic and reactive dimension of [32].

When looking at our sample, we observe that, while NFTs inherently have this characteristic of uniqueness, many of them are launched in very small series, making them even more "special", and this aspect is emphasised in communication with the limited collection size clearly communicated. For example the Robert Mondavi Winery only launched 1966 NFTs to refer to their year of creation.

Holbrook describes this value type as the value that materialistic people can derive from highly desirable possessions without emphasising on the scarcity of these possessions. He cites, for example, "*a beautifully manicured lawn around our house in the country*" [32], which is not a scarce asset but a culturally desired one.

As the observed NFT initiatives classified in this *esteem* value type put their uniqueness as principal argument for their desirability, the framework has been clarified by adopting the term *rarities ownership* and the following definition: **NFT initiatives have potential *rarities ownership* value when they are publicly recognised as rare**.

We propose the following criteria to classify NFT initiatives as providing *rarities ownership* value:

- C1: The NFT underlying asset has unique meaningful characteristics; and
- C2: The supply of issued NFTs is limited to provide a sense of scarcity; and
- C3: The underlying asset is recognised as rare and desirable.

For this value type, we believe that the three criteria are required for an initiative to offer potential *rarities ownership* value. For C1, we believe that it's important for NFTs to have unique meaningful characteristics. Although the perception of meaningfulness of a characteristic is subjective, what gives the unique character to an NFT should go beyond a mere (unique) serial number. Concerning C3, we interpret "desirable" as related to showing wealth or cultural taste, consistently with our discussion on the pride of ownership theory [2, p.216].

Charity (originally ethics)

Ethics is the other-oriented, intrinsic and active value type. It refers to action-related objects that have a positive impact on others well-being, typically, giving money to charity for altruistic motives [8, p.924].

When looking at our NFT initiatives sample, we observe that most initiatives classified in this other-oriented, intrinsic and active value type aim to give (part of) their profit to charities. These initiatives support environmental causes such as in the Givenchy initiative for Ocean CleanUp or societal causes such as DKNY for the "Coronavirus Response Fund for Nurses". Compared to the original conceptualisation of [32] that gives several examples of products/services carrying *ethics* value, our sample only puts forward this charity funding argument.

Based on this analysis, the framework has been clarified by renaming *ethics* in *charity* and proposing the following definition: **NFT initiatives have potential *charity* value when their usage or acquisition helps the realisation of a good deed.**

We propose the following criteria to classify NFT initiatives as providing *charity* value:

- C1: When the NFT is sold, the money goes to charity or helps a charity organisation to perform good deeds; or
- C2: The issuing organisation commits to a socially good action when the NFT is bought.

Any of these criteria is sufficient to classify an initiative as having the potential to deliver *charity* value.

Community Belonging (originally spirituality)

Finally, *spirituality* is the other-oriented, intrinsic and reactive value type. It is close to the concept of a sense of belonging. As explained by Lambert et al. [42, p.1418], the sense of belonging to a community where we feel accepted is a fundamental human need that is one of the main drivers of perceiving meaning in life. Some possessions, as a part of the consumer extended self, act as reminders of their belonging to a particular community [10, p.139]. With this power of reminding the belongingness to a community, the object is therefore valued in an other-oriented, intrinsic and reactive way. Research has identified links between the sense of belonging and fandom communities such as sports [73, p.216747952311716; 77], music festivals [34, p.213] or brands' communities [3, p.19]. Some NFT initiatives put forward this idea of community such as in the case of the Coachella music festival.

Looking at the original definition, *spirituality "involves a mystical disappearance of the self-other dichotomy in a manner that seems to merge the self with the Other" [32]*. The author emphasises religion to illustrate his *spirituality* value type, identifying the Other with 'God' or with a 'Cosmic Force'. In the present analysis of NFT initiatives, the Other is more often a community.

We therefore renamed *spirituality* as *community belonging* and adopted the following definition: **NFT initiatives carry *community belonging* value when their possession identifies the owners to a specific community.**

We propose the following criteria to classify NFT initiatives as providing *community belonging* value:

- C1: The NFT is centred around a new or existing community; and
- C2: Ownership of the NFT helps reinforcing the feeling of belonging to the community.

Framework illustration

In order to illustrate how to use the NFTByBrands framework and the benefits it can bring, we apply it to two new NFT initiatives that were not part of our sample. For each case, we begin with a description of the chosen initiative. Then, we apply each criteria of the framework to the initiative and provide an overview of the value types that it can potentially provide. It illustrates how brands can use NFTByBrands to analyse the potential of NFT initiatives and think of different ways to provide additional value.

Description of NFT initiative 1 - The Starbucks First Store Collection

"The Starbucks First Store Collection" is the second, limited edition, NFT drop featuring 5,000 Stamps priced at $100 each released on April 19th, 2023. The sale was initially exclusive to Starbucks Odyssey members who had earned at least two unique Journeys Stamps (from previous NFT drop). The collection showcases a multimedia collage of photos, in-store textures, and iconic symbols from Starbucks' archives, commemorating the first Starbucks store at 1912 Pike Place in Seattle. By purchasing an NFT from the collection, owners receive 1,500 points on the Starbucks Odyssey platform. These points earned through purchasing the NFT from "The Starbucks First Store Collection" add to the member's total points, providing opportunities to access higher reward tiers and choose from a range of exclusive benefits and experiences within the Starbucks Odyssey program. Out of the 5,000 NFTs offered, only 4,579 sold, unlike the first edition which sold out in 20 minutes. We will use the NFTByBrands framework to analyse this initiative. The classification of the initiative is presented in Table 3.

Table 3. Classification of Starbucks Odyssey's "The Starbucks First Store Collection" NFT initiative

	Extrinsic	Intrinsic
Active	**Utility** ✔ C1: The NFT gives access to physical or digital products or services; and/or ✔ C2: The NFT gives access to an event; and/or ✔ C3: The NFT gives access to privileges	**Play** ✘ C1: The NFT is a component of a game; and/or ✔ C2: The NFT is part of a collection; and/or ✘ C3: The NFT encompasses "surprise" components; and/or ✘ C4: The NFT can be materialised in a playful manner
Reactive	**Investment** ✔ C1: The NFT can be traded; **and** ✘ C2: The NFT proves the authenticity of a luxury item; and/or ✘ C3: The NFT proves the quality of an item	**Contemplation** ✔ C1: The NFT underlying asset is a piece of art; and/or ✔ C2: The NFT underlying asset depicts a memorable moment
Active	**Status** ✘ C1: The NFT ownership can be shown to others via social media, game platforms, or in physical environments; and ✘ C2: The NFT enhances the public image of the owner	**Charity** ✘ C1: When the NFT is sold, the money goes to charity or helps a charity organization to perform good deeds; or ✘ C2: The issuing organization commits to a socially good action when the NFT is bought
Reactive	**Rarities Ownership** ✔ C1: The NFT underlying asset has unique meaningful characteristics; and ✔ C2: The supply of issued NFTs is limited to provide a sense of scarcity; and ✔ C3: The underlying asset is recognised as rare and desirable	**Community Belonging** ✔ C1: The NFT is centred around a new or existing community; and ✔ C2: Ownership of the NFT helps reinforcing the feeling of belonging to the community

Legend: white cell = potential value is not present; light grey cell = potential value is partially present; dark grey cell = potential value is fully present.

Framework application to The Starbucks First Store Collection

By examining our analysis within the framework, it appears that the Starbucks Odyssey's "The Starbucks First Store Collection" NFT initiative [71] encompasses five potential value types. Notably, the company has placed significant emphasis on four value types: *utility*, *rarities ownership*, *contemplation* and *community belonging*, as they fulfil all the criteria that can be readily addressed by the initiative. The *play* value is partially explored in this NFT initiative, yet its full potential has not been realised. Moreover, the value types of *investment*, *status* and *charity* are not considered in this particular initiative. Hereafter, we provide a comprehensive explanation for each value type in relation to The Starbucks First Store Collection initiative.

The NFT initiative fulfils all the criteria for ***utility*** value. The NFT provides access to a digital product, specifically an artwork depicting the aesthetic of the original Starbucks store. Additionally, acquiring an NFT from the initiative offers the chance to participate in pre-sale sessions for upcoming NFT drops. It should be noted that owning an NFT from the initial drop in March 2023 was a prerequisite for purchasing the NFTs in subsequent releases. Lastly, possessing an NFT from this initiative grants privileges within the Starbucks Odyssey's reward program.

The ***investment*** is not a value type provided by the initiative because it does not satisfy C2 and C3, and C1 is not sufficient alone. Indeed, the NFTs can be traded and are resold at considerable prices in secondary NFT markets (C1). Nonetheless, possessing the NFT does not serve as a definitive proof of authenticity for a luxury item, nor does it validate the quality of any item.

Regarding the ***status*** value, it appears that no measures have been implemented to demonstrate the ownership of the NFT to others through robust communication channels such as social media, gaming platforms, or physical environments. This implies the absence of potential *status* value of this initiative. Consequently, the second criterion, which pertains to enhancing the public image of the owner, is not applicable in this particular initiative.

Subsequently, we note that Starbucks Odyssey has made efforts to provide the ***rarities ownership*** value type. Indeed, the NFTs are introduced in a restricted edition (5000 stamps) relatively to their high popularity. Furthermore, the digital assets underlying the NFTs possess significant attributes, including photographs, in-store textures, and iconic symbols derived from Starbucks' historical records which make them rare and desirable.

The initiative provides the **play** value type in solely one criterion among the four proposed. The NFTs are issued as a stamps collection, thereby implying a game-like aspect centred around their acquisition. Nonetheless, there is a lack of integration of these NFTs into platforms or games, which would enable owners to monitor their possession count and collection progress, among other features. Similarly, the absence of game mechanics such as receiving surprise NFTs upon reaching specific ownership thresholds further contributes to the limited provision of this value category.

With regards to the ***contemplation*** aspect, it appears that the NFT initiative gives access to an artwork, thereby fulfilling the first criterion. Moreover, the fact that the artwork is aligned with the aesthetic of Starbucks, the stores, colour, textures and memorable images. It makes it clear that the NFTs also represent a specific memory or positive experience for the buyers, therefore fulfilling the *contemplation* value type.

The ***charity*** value type is not explicitly manifested within the NFT initiative. Despite the inclusion of donations as a potential reward in the Starbuck Odyssey's loyalty program when customers achieve a specific level of loyalty, the NFT initiative does not have a direct intention to allocate funds to charitable causes. Consequently, neither of the criteria is fulfilled in this initiative.

Ultimately, the ***community belonging*** value constitutes the third fully represented value type within The First Starbucks Store Collection NFT initiative. Indeed, the exclusive nature of the NFT release, limited solely to prior purchasers and participants of the loyalty program, indicates a deliberate focus on fostering a sense of community among Starbucks customers. This emphasis further strengthens the sentiment of belonging within a distinct community, namely the loyal supporters of Starbucks.

Description of NFT initiative 2 - UNICEF's Project Connect

UNICEF launched a NFT initiative to raise funds for connecting schools to the internet in developing countries [74]. They have launched a collection of 1,000 NFTs called "*Patchwork Kingdom*" on the Ethereum blockchain. The NFTs showcase data collected by Giga, depicting areas and people with and without internet connectivity. The funds raised from the sale of these NFTs will be used to support the Project Connect initiative, which aims to connect over

1.1 million schools in 49 countries to the internet. The NFTs allow donors to track the impact of their contributions, as each NFT represents a specific school and its internet connectivity status. This innovative approach to fundraising enables transparency and accountability, giving donors the assurance that their donations are being used to address the problem of limited internet access in schools. UNICEF has used NFTs for fundraising purposes, and this initiative highlights their commitment to leveraging digital technologies for social impact. All NFTs issued were sold out in three hours, and secondary market exchange generated 20% more funds. Once again, we analyse this initiative through the NFTByBrands framework and present the results in Table 4.

Table 4. Classification of UNICEF's Project Connect NFT initiative

		Extrinsic	Intrinsic
Self-Oriented	Active	**Utility** ✔ C1: The NFT gives access to physical or digital products or services; and/or ✘ C2: The NFT gives access to an event; and/or ✘ C3: The NFT gives access to privileges	**Play** ✘ C1: The NFT is a component of a game; and/or ✔ C2: The NFT is part of a collection; and/or ✘ C3: The NFT encompasses "surprise" components; and/or ✘ C4: The NFT can be materialised in a playful manner
Self-Oriented	Reactive	**Investment** ✔ C1: The NFT can be traded; **and** ✘ C2: The NFT proves the authenticity of a luxury item; and/or ✘ C3: The NFT proves the quality of an item	**Contemplation** ✔ C1: The NFT underlying asset is a piece of art; and/or ✘ C2: The NFT underlying asset depicts a memorable moment
Other-Oriented	Active	**Status** ✘ C1: The NFT ownership can be shown to others via social media, game platforms, or in physical environments; and ✘ C2: The NFT enhances the public image of the owner	**Charity** ✔ C1: When the NFT is sold, the money goes to charity or helps a charity organization to perform good deeds; or ✔ C2: The issuing organization commits to a socially good action when the NFT is bought
Other-Oriented	Reactive	**Rarities Ownership** ✔ C1: The NFT underlying asset has unique meaningful characteristics; **and** ✘ C2: The supply of issued NFTs is limited to provide a sense of scarcity; and ✘ C3: The underlying asset is recognised as rare and desirable	**Community Belonging** ✘ C1: The NFT is centred around a new or existing community; and ✘ C2: Ownership of the NFT helps reinforcing the feeling of belonging to the community

Legend: white cell = potential value is not present; light grey cell = potential value is partially present; dark grey cell = potential value is fully present.

Framework application to UNICEF's Project Connect

Table 4 shows that UNICEF's Project Connect NFT initiative put forward four out of the eight distinct value propositions for NFT buyers, but only one being fully realised:

charity. The remaining values, namely *utility*, *play*, and *contemplation*, each meet merely one of the proposed criteria.

The NFTs initiated by UNICEF solely provide ***utility*** value to purchasers by presenting a digital counterpart, specifically an artwork, as the underlying asset of the NFT. Nonetheless, possessing an NFT does not grant buyers access to exclusive occasions or any associated privileges.

The ***investment*** value is not fulfilled as it is solely offered thanks to the trading component of the NFTs (C1) but does not offer C2 and C3. It is noteworthy that a substantial portion of the raised funds originates from sales in the secondary market, thereby proving its tradability. Nevertheless, the possession of a UNICEF NFT does not ascertain the genuineness of the luxury or the *excellence* of any associated item.

With regard to the ***status*** value, none of the criteria were fulfilled by the initiative. Indeed, the issuer of the NFT has not designed any platform or specific means to exhibit the NFT to others, thereby diminishing the *status* value conferred by the NFT.

Subsequently, the ***rarities ownership*** encompasses the fulfilment of a single criterion (C1) thus the value can not be considered as fulfilled (C2 and C3 not fulfilled simultaneously). The UNICEF NFTs exhibit meaningful characteristics, specifically a unique and artistic representation of the differences of internet access in schools across the globe. A total of 1000 NFTs were generated, albeit not with the intention of creating scarcity or rarity, thereby diminishing the inclination for buyers to perceive them as valuable possessions.

The only ***play*** value type that this NFT initiative is providing for the buyers is the fact that it is a collection of artworks. Some buyers may be willing to collect all or multiple pieces of this collection. However, there are no game components nor surprise components after buying the NFT. Moreover, the NFT is never materialised in a playful manner.

The UNICEF NFT initiative meets one of the two criteria for providing a ***contemplation*** value to the purchaser, which involves granting them access to an artwork crafted by a Dutch artist. Nevertheless, it does not encapsulate a significant moment that would be personally memorable for the buyer, hence diminishing the potential of this value type in this particular initiative.

The most fulfilled value type provided by this NFT initiative is the ***charity*** type. Indeed, the explicit and shared goal of UNICEF while issuing the NFTs was to raise awareness on the poor internet access in developing countries schools and to raise funds for this purpose. About 75% of the money received by the sale and resale of the NFTs are going directly for Project Connect. Indeed, the initiative imposes a commission fee on every transaction involving the purchase or subsequent resale of NFTs. This value type is the only value type entirely fulfilled by this initiative and it was explicitly the goal of the organisation.

Finally, the UNICEF NFT initiative lacks the element of ***community belonging*** value. This outcome may come as a surprise, considering that individuals who are already committed supporters of the organisation might be expected to participate in and purchase these particular NFTs. Nonetheless, UNICEF did not have the intention to deliberately establish a community centred around this NFT initiative, unlike other initiatives such as 300Gorillas [1], which strives to cultivate a community through NFT sales.

Discussion and limitations

In this section, we come back to the analysis of the sample of NFT initiatives used as a basis to build the proposed framework, and discuss our findings. Doing so, we also discuss the limitations of the present research, provide some leads for further research, and provide guidelines on the application of the framework.

To start the discussion, we provide a first analysis of the distribution of NFT initiatives in our sample with regards to the value types they can potentially, at least partially, provide by fulfilling one or several criteria of NFTByBrands (Figure 4) and the amount of potential value types that are, at least partially, addressed by the initiatives (Figure 5). A limitation in the present research is that the sample is not guaranteed to be representative of all NFT initiatives led by brands, as we did not follow a systematic procedure for the collection. Therefore, we cannot generalise our findings with respect to the distribution of NFT initiatives across the identified categories and sectors.

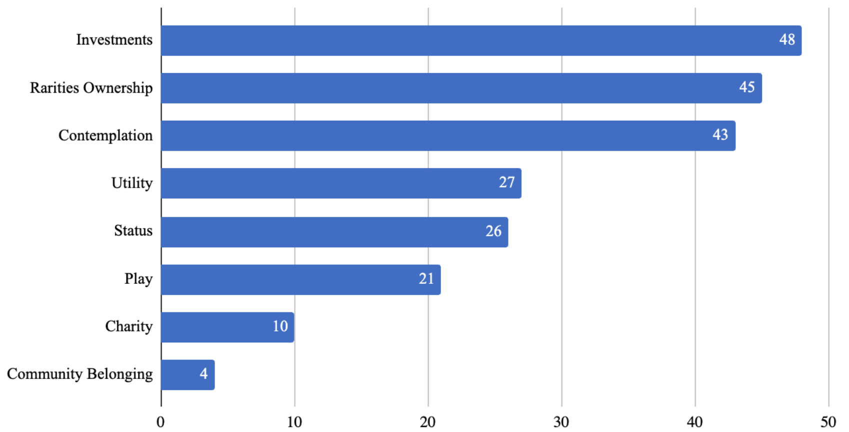

Figure 4. Number of NFT initiatives out of the 50 among the framework's values, adapted from [65, p.4543]

The three most frequently represented framework values are *investment*, *rarities ownership* and *contemplation*. This suggests that NFTs are still mainly considered as prestigious financial investments in artworks. Further research could investigate if some inherent characteristics of NFTs, such as being non-interchangeable, can explain this distribution. These three value types are reactive, indicating that they require less effort compared to integrating the NFT into a broader interactive IT ecosystem such as a game, forum, or app than the NFTs providing active types of value. However, this could also indicate that NFT technology is still in its infancy and that there is still room for brands to innovate and propose these types of integrations. The success of the NBA's Top Moments collection or the startup Sorare could be partly due to their ability to add more value with this part of interactivity.

We also observe that NFTs are most often linked to extrinsic value types. This could mean that NFTs are still seen as a means rather than an end in themselves. NFTs alone as certificates of ownership may not be sufficient in the eyes of their users. While their high value on the market is the most common form of extrinsic value in our sample (*investment* and *rarities ownership*), brands may gain a competitive advantage by offering gifts and benefits (*utility*) or means to show off our NFT ownership (*status*). On the other hand, brands can differentiate themselves by investing in the intrinsic part of the value of NFTs, which is less of a focus. By adding more interactive and entertaining features, such as AR visualisations, or by focusing on creating a community with particular values that could be sustained through the exchange of NFTs.

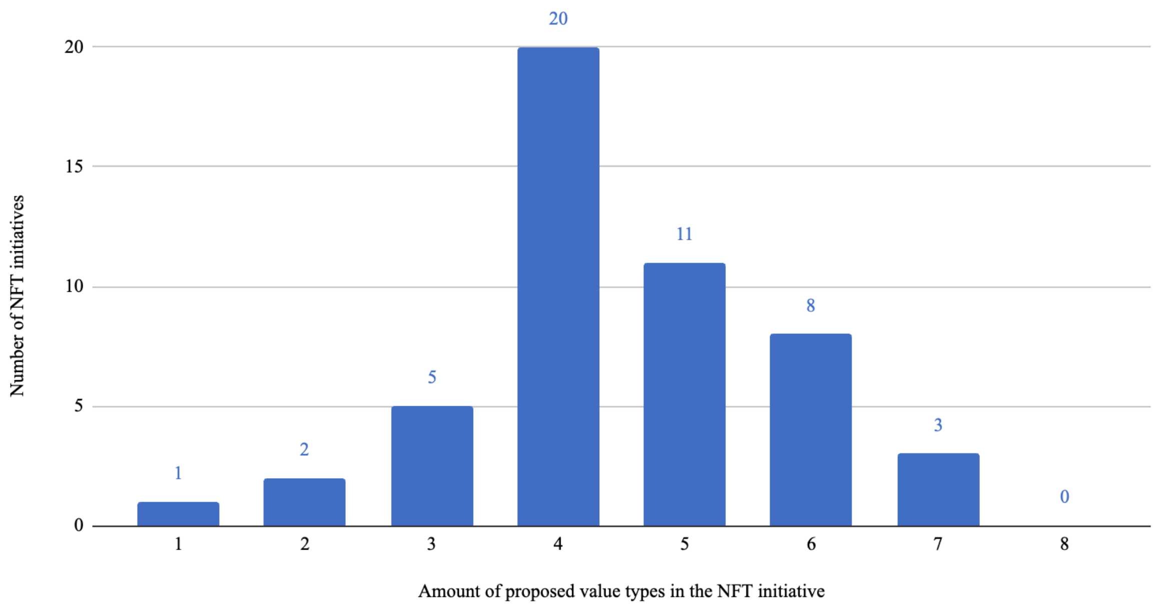

Figure 5. Distribution of the number of perceived values per NFT initiatives, adapted from [65, p.4543]

As shown in Figure 5, we find that the vast majority of initiatives offer, at least partially, many different types of value. However, very few initiatives combine more than 6 types of value. While we cannot provide an indication of what the ideal number and what combinations are the most interesting, this constitutes further research opportunities. Nonetheless, in Table 5, we show the co-occurrence of the potential value types in our sample. The table contains the number (and percentage) of initiatives in our sample having the potential to provide each pair of values. Although we cannot generalise these results, we can see in our sample that the pairs of values that are the most commonly found together are *investment* and *rarities ownership* (88%), followed by *investment and contemplation* (82%), and *rarities ownership* and *contemplation* (78%). The values involved are also the most representative in our sample. Although further research is needed to substantiate such a claim, it might be an opportunity for brands to try to differentiate their NFT initiatives from others by doing something other than issuing some form of art that owners can contemplate and hopefully sell later at a higher price than the one they paid.

Table 5. Value types co-occurrences

	Utility	Investment	Status	Rarities Ownership	Play	Contemplation	Charity	Community Belonging
Utility		27 (54%)	20 (40%)	24 (48%)	13 (26%)	22 (44%)	3 (6%)	4 (8%)
Investment			25 (50%)	44 (88%)	19 (38%)	41 (82%)	10 (20%)	4 (8%)
Status				26 (52%)	11 (22%)	21 (42%)	3 (6%)	3 (6%)
Rarities Ownership					17 (34%)	39 (78%)	10 (20%)	3 (6%)
Play						20 (40%)	1 (2%)	3 (6%)
Contemplation							10 (20%)	4 (8%)
Charity								0 (0%)
Community Belonging								

Throughout the value analysis presented in the framework design section, we have made a number of observations that are worth discussing in the use of the proposed framework. We structure the discussion around the 8 types of values considered in the adapted framework.

Starting with ***utility***, we observe that the NFTs are mostly vouchers that allow the obtention of digital or physical gifts. In many cases, the gift is tied to the brand issuing it. If between the purchase and the usage of the voucher, the brand goes bankrupt or the event is cancelled, the NFT has no more *utility* value. Therefore, although the platform used to manage the vouchers/tickets is decentralised, the ability to realise the value is highly centralised, as it lies in the hands of the issuing brand. Therefore, we believe that if an NFT initiative only targets this value type, the use of blockchain technology and NFTs might not be recommended. Indeed, developing such solutions implies complex and costly software development efforts without leveraging advantages and characteristics of blockchain such as decentralisation.

Next, for the ***investment*** value, we observe that many NFT initiatives, directly or indirectly, carry some *investment* value. This is not surprising as NFT are by nature unique assets. Brands should therefore consider this aspect while developing their NFT initiative strategy. For example, if the positioning of the company is tied to non-profit, why not consider incorporating in the smart contract a rule that gives part of the profits of each sale to a charity? This way, the *investment* inclination inherent in the NFTs nature could be interpreted as a potential way to deliver *charity* value, and remain consistent with brand positioning.

Looking at the "game component" criterion of the ***play*** value type, we notice that the platforms (including games) which integrate the NFTs *play* a critical role. While NFTs are per nature decentralised, this study highlights that the platforms are often linked to a single brand (e.g. NBA). If a brand attempts to provide *play* value with a game supporting NFTs in various ways, we would recommend the game (or platform in general) to be open source so as to enable anyone to keep playing and fork the game if some changes proposed by the brand are not appreciated by the community. Also, creating NFTs that can be used in existing games might be an interesting avenue to investigate. One of the key advantages of this approach is that it doesn't require the issuing brand to develop entirely new platforms at expensive costs, without being sure that the targeted people would like the game and purchase the NFTs.

Concerning the ***contemplation*** value type, it is interesting to notice that many analysed initiatives use a digital piece of art to deliver this value. However, those creations can mainly be accessible and shared with everyone thanks to a simple screenshot. This questions the viability of NFT initiatives aiming only at delivering *contemplation* type of value. A solution might come from platforms such as the metaverse or other virtual worlds that allow the display of NFTs.

The ***status*** and ***rarities ownership*** values come from the ability of others to acknowledge one's possessions. Once again, the platforms built on top of NFTs play a critical role, especially for digital art. Without a dedicated platform, NFTs are merely records in a database proving ownership. They are not very visible and it is hard to show to others our possessions. We therefore emphasise the importance for brands to think about how the NFT they issue can be displayed or shown off by their owners.

For the ***charity*** value, the initiatives of our sample propose to use the funds raised through the sale of the issued NFTs for charity and good causes. In most cases, the fundraising is done only through the initial sale of the NFT. As mentioned earlier, an interesting possibility to investigate is the extension of the fundraising beyond initial sale. Existing NFT standards propose to include royalties, in which a percentage of each sale (beyond the initial one) is sent to a specific receiver. With such a standard, each resale of the NFT will provide royalties to the charity, further increasing the *charity* value at the same time.

Concerning ***community belonging*** value type, no initiatives in our sample mentioned the ideas traditionally attached to blockchain: decentralisation and independence. It could be interesting to investigate from the user point of view if these ideas are important and if they might somehow create a "NFT community" feeling. We also believe that, despite the *community belonging* value a NFT can create, it is important to remain consistent with the brand positioning. For instance, using a blockchain relying on the Proof-of-Work algorithm consensus, which is consuming a lot of energy, might be inconsistent with a brand that wants to embed ecological values.

In addition to the analysis of the value distribution, this research has another limitation related to the framework we adapt. Amongst them, the framework only implicitly incorporates dimensions of price, effort and time costs [28, p.724]. Usage of NFTs is still a challenge for users that are not technology-savvy in terms of time and effort costs. No matter the intended value types to deliver, it remains an important avenue of research to decrease those costs.

Further Research Agenda

Additionally to the research directions mentioned in the previous discussion, this section presents a research agenda of five research avenues derived from both the current literature and our framework analysis.

Extended data collection

Even though we adopted a systematic methodology for classifying and identifying the NFTs value characteristics, the generalizability of our conclusions is limited due to the data collection conducted in this article. For example, a more systematic research methodology could allow exploration of the sectors missing from this article, or deep dive in a specific sector. NFTs can also have an impact in other sectors than those analysed in this article, such as healthcare [56, p.21] or real-estate [54], among others. Another possible extension to this research is to analyse the NFT initiatives offered by individuals, which were not discussed in the present paper.

NFTByBrands to evaluate adoption behaviours of NFTs

As mentioned in the background, the user's perceived value has an impact on adoption [41]. While it may appear implicit that this relationship between perceived value and adoption also holds in the specific case of NFTs, the validity of this relationship remains unproven and could potentially be moderated or mediated by various factors. These could include the buyer's profile, the type of perceived value, the platform's reputation or the brand's influence. Hence, future research may investigate the use of NFTByBrands to evaluate adoption behaviours of NFTs.

Optimal design of NFT initiatives

Brands can leverage the NFTByBrands framework to strategically plan, develop, and align their NFT initiatives with their overall objectives, core values, or customer needs. By utilising this framework, brands can navigate the intricacies and nuances involved in creating a value-based, captivating NFT project. The question of how to integrate different types of technologies to deliver the desired combination of value types is an interesting avenue for further research. For example, it could be interesting to investigate how the integration of augmented reality in NFTs initiatives can influence the different value types. The question of designing NFTs that provide particular value types is a meaningful avenue for further research.

Analysis of the (mis-)alignment between the intended and perceived value

Further research could involve NFTs holders to investigate the value they actually derive from the initiatives and survey brands that issue NFTs to highlight the types of value they actually intend to deliver. This would help brands to design NFT initiatives that are well aligned with their value delivery and capture strategies. Because we did not interact with the brands that issued the NFTs we analysed, we cannot assert that the types of value identified in our analysis are those that the issuing organisations actually intended to deliver. Analysing the extent to which the two are aligned is crucial as failed NFT initiatives can damage corporate reputations.

Utilising NFTByBrands in a Co-creation Context

Co-creation [43, p.26; 44, p.454] opportunities in the context of NFTs is also worth further investigation. Integrating the user in the NFT creation could indeed be a path to value creation. For example, regarding *contemplation* value, incorporating user defined memorable moments into NFTs can potentially enhance the perceived contemplation value. This aspect is worth further investigation to uncover how NFT initiatives can facilitate the collaborative creation of value.

Conclusion

This paper is the first attempt to provide a multi-faceted conceptualization of the value that brands can offer to prospective or existing customers through NFT initiatives, unlike previous work seldom incorporating other values than financial return. We analysed a set of 50 initiatives launched by brands to identify the potential value types they could help deliver, based on Holbrook's framework on customer perceived value [32] along with previous work in marketing, psychology, economics and philosophy. As a result, we propose the NFTByBrands framework which is an adaptation of Holbrook's and includes 8 value types that can be potentially offered through NFT initiatives: *utility*, *investment*, *play*, *contemplation*, *status*, *rarities ownership*, *charity* and *community belonging.* The framework provides a clear definition for each value type along with actionable criteria to help classify and analyse the potential of NFT initiatives. It can be used by brands to guide the design of their initiatives, and provides a common foundation for further research on NFT users' perceived value and value-driven design of NFT initiatives

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