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B. Business Impact

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ESCP Impact Paper No.2023-10-EN

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Abstract

Non-fungible tokens (NFTs) include a wide range of digital assets, from virtual real estate, to collectible art pieces, and other unique identifiers recorded in the blockchain. NFTs have been the subject of hype, commotion, and drama since they became widespread in 2021. Despite their popularity, their utility has been heavily questioned. This raises the question of how NFTs can contribute to value creation for customers as a comprehensive analysis is still missing. In this article, we propose a typology of NFT products based on the type of value generated for customers to help marketers select which NFT to implement.

Keywords: Non-fungible tokens (NFTs), branding, self-identity, consumer psychology

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Non-Fungible Tokens: Are they really so futile?

Several types of Non-fungible tokens (NFTs; i.e., unique identifiers recorded in the blockchain) are available in virtual marketplaces (Colicev 2023). NFTs can either be associated with a physical product or represent a virtual asset only. They can be displayed in public (e.g., social media) or just in private settings. We posit here that, today, NFTs mainly fall into four main categories: collectibles, digital ornaments, digital twins and digital Free Pass. But what is the consumer value generated by these NFTs?

We argue that, like physical goods, NFTs satisfy key psychological needs. Indeed, digital possessions can both serve as cues for others to form impressions and as markers for individual and collective memory (Belk 2013). More precisely, previous studies have investigated how possessions can contribute to the definition of self-identity and the communication of one's identity in social settings, proposing that consumption serves both self-development and self-enhancement goals (e.g., Stets and Burke 2000). In a similar vein, we propose that NFTs can act as transformational value offerings, as they provide opportunities to alter consumers both in the digital and sometimes in the offline world (Kleine et al. 2009). Therefore, NFTs can satisfy:

(1) Self-enhancement motives: NFT consumption can be a motive to project a positive image of oneself to social groups and achieve a sense of social distinction and pre-eminence (Kurt et al. 2011).

(2) Self-development motives: NFTs are acquired to increase consumer self-efficacy and improve consumers' skills and abilities (Kervyn et al. 2012).

By reviewing recent business cases in the light of academic research, we draw a typology of NFTs which should help marketers decide which NFTs to develop and how to implement it to satisfy specific consumer goals.

	Collectibles	Digital Ornaments	Digital Twins	Digital Free Pass
For Self Enhancement	Series of NFTs that can be collected and publically displayed e.g., Bored Ape Yatch Club, CryptoKitties	Digital products that can be displayed in virtual worlds e.g., Burberry on Banko Block; virtual real estate	Digital twins that consumers can use and display on virtual platforms e.g., Nike 2019 CryptoKick	NFTs that give access to perks or fancy events e.g., Starbucks Odyssey loyalty program
For Self Development	Limited edition NFTs expected to appreciate in value over time e.g., Porsche NFT series	Digital trophies (/ certificates) in video games e.g., Axie Infinity Battles	NFTs that provide certificate of authenticity for exclusive product e.g., Bulgari Octo Finissimo Ultra watch	NFTs that give access to exclusive discussions or online discussion events (for instance on Discord) e.g., Veefriends platform

Figure 1. Proposed Typology of NFTs

Next, we explain and illustrate each dimension of the proposed typology.

NFTs as collectibles

(Series of) NFTs have gained popularity as tools to create virtual collectibles whose ownership and uniqueness are certified. Originally developed in the art industry, collectible NFTs have expanded to branded creations taking on the mass-market (Belk et al. 2022; Sundararajan 2022). Collectible NFTs can address both self-development and self-enhancement motivations.

Collectibles for self-enhancement. The more popular applications of collectibles NFTs aim at generating status value and convey a positive self-image of the consumer in virtual settings. CryptoKitties, NBA Top Shot, Garbage Pail Kids, and Bored Ape Yacht Club are famous examples of collectible NFTs that aim at generating value in social settings (e.g., on social media) and convey a specific self-image to the members of the online community. In the marketing field, McDonalds, for instance, issued one-of-a-kind NFT collectibles that could be traded on the blockchain such as a 'friendship box' of reimagined brand iconography and other brand intellectual property items.

Collectibles for self-development. Another way in which collectible NFTs are generating value is by providing opportunities for self-development and acquisition of unique and certified items that appreciate in value over time, therefore developing consumers' investment skills. This type of NFTs offers key opportunities for brands to deliver hedonic value while providing utilitarian benefits in the form of monetary investment expected to increase in value over time. For instance, the limited Porsche NFT series represents the beginning of an exclusive Porsche community, the Pioneers Circle that can be accessed by Porsche NFT holders only. Each Porsche NFT in this collection will be based on the starting canvas of a white Porsche 911 Carrera. After purchase, every holder can keep shaping the look of their NFT over several months, resulting in the NFT to be tailored and to evolve according to the taste of the owner and transforming each Porsche NFT in a unique art piece. Another example is DuBois et Fils (Swiss watchmaker) which relies on the blockchain to tokenize watch movements (Desmichel 2023). The company decided to manage these vintage movements in a sustainable and secure way by recording them on the blockchain and thus adding value to each of them with a NFT while providing a financing opportunity for consumers. When the watch movement is used in production, the buyer can decide to purchase the limited-edition watch fitted with this movement at a discount, or sell the movement back to the company for a profit with all contracts recorded in the blockchain to ensure complete transparency (Desmichel 2023).

Consumers can go beyond the pure collection and embed NFTs in their digital self with digital ornaments.

NFTs as digital ornaments

Contrary to collectible NFTs, digital ornaments are digital objects that consumers incorporate into their virtual selves by using and wearing them in virtual settings. Indeed, online, consumers can craft their social image by adorning themselves with NFTs.

Digital ornaments for self-enhancement. Top-of-mind examples of digital ornaments include virtual clothing or accessories for avatars in virtual worlds or online gaming environments, offering new and exciting ways for fashion brands to reach a wider audience. According to Morgan Stanley, the market for virtual luxury goods will reach USD (\$) 56 billion by 2030 (Lee 2021). In 2021, Burberry invested in the Banko Block party, a multiplayer gaming

platform, where consumers buy “Blankos”, virtual toys that are used as avatars in the game. The luxury brand launched limited editions of Sharky B, a branded Blanko, as well as branded accessories for the virtual toy (McDowell 2022). Digital ornaments NFTs can also represent virtual real estate, such as plots of land within virtual worlds or online gaming environments. This allows individuals to own and use virtual real estate for a variety of purposes (e.g., building virtual homes or businesses) in a secure and verifiable way and ensures that these assets are protected and easily transferable. Decentraland and Sandbox are examples of blockchain-based virtual worlds, where this type of digital ornaments can be purchased (Mileva 2022). Digital ornaments tend to be scarce and conspicuous and can thus be used as status signals in virtual spaces (Han, Nunes and Drèze 2010). The status signal may even be stronger when the NFT is created by a luxurious brand.

Digital ornaments for self-development. These digital ornaments are NFTs that are earned to embody and symbolise consumer achievements. For instance, the online gaming platform Axie infinity enables their players to use an NFT as a game avatar to train it and acquire unique skills. Players can engage in battles to boost the performance of their “Axie” (i.e., a Pokemon-like creature), to later exchange them at a higher price. Axie Infinity has, therefore, been one of the first games to experiment with the play-and-earn model (Nagarajan 2022; Vidal-Tomas 2022). This new business model relies on players’ excitement to play (i.e., hedonic value), motivation to make profit (i.e., functional value) and desire to display their superiority in the game (i.e., status value).

But what if consumers could wear the same product both in the digital sphere (in the form of a NFT) and offline (in the form of a physical product)?

NFTs as digital twins

The NFTs’ underlying technology has allowed the brand to create physical products and link them to unique digital codes (i.e., NFT), so-called Digital Twins (Colicev 2023). NFTs as Digital Twins are identical digital versions of real-world objects that offer an extra level of value for brand enthusiasts and collectors.

Digital twins for self-enhancement. With Digital Twins, customers can brag about their latest purchase even before receiving the physical item, breaking down barriers of both time and location. In addition, Digital Twins can also foster the perception of product scarcity and rarity in the digital and physical worlds (Kaczynski and Kominers 2021). Moreover, this type of NFT allows brands to create fully personalised physical fashion items, usually, designed by famous influencers or designers, attached to a NFT Digital Twin, to trigger the feeling of exclusivity. For instance, RTFKT Studios, a Web 3 company known for its digital avatars and Metaverse collectibles, collaborated with Nike to launch Cryptokicks personalized sneakers (Binance 2023).

Digital twins for self-development. These NFTs provide intrinsic practical benefits for both consumers and brands. Specifically, brand manufacturers can certify authenticity and provenance by linking the product serial number to an NFT using the NFC technology or a QR code. For example, the world’s thinnest watch, Octo Finissimo Ultra (from Bulgari) issues an NFT for every purchase to serve both as an art piece and as a certificate of authenticity (Binance 2023). Beyond authenticity digital twins can be used by brands to deliver exclusive information about the product (e.g., brand know-how, product history; Desmichel, 2023).

Beyond the consumer-product relationship, NFTs can also strengthen the consumer-brand relationship.

NFTs as digital free passes

Last but not least, NFTs can be used as digital loyalty cards, giving free access to special events for the most loyal brand customers.

Digital free-pass for self-enhancement. NFT memberships are being used as keys to gated online brand communities, where members can access a wide array of virtual experiences, exclusive information, and unique privileges. They are also used to offer ticket holders extra perks, such as air-dropped tickets to exclusive events (Binance, 2023). Recently Starbucks has launched Starbucks Odyssey and sold a few thousands of “stamps” (i.e., NFTs) which will provide owners with exclusive brand experiences (e.g., visiting a coffee farm, getting free coffee).

Digital free-pass for self-development. NFTs can also provide access to events or discussions, not only offering NFT owners greater visibility and status, but also exclusive knowledge. As an example, the American entrepreneur Gary Vaynerchuk has created a community of fans (called “Friends”), who can purchase NFTs on a platform called VeeFriends and, in turn, get access to events, such as the Veecon conference on digital innovations (Langston, 2022). In parallel, Discord, the forum platform, had developed an option of NFT Token gated forums, only accessible to specific NFT owners. NFT could therefore unlock the access to certain chat rooms, news, and roles.

Conclusion

Overall, NFTs can add value to the customer experience by generating self-enhancement and self-development utilities. Marketers should assess which psychological goal they are trying to satisfy before designing any NFT-based offering and be aware of the different implications associated with different types of NFTs. It is also important to note that this is a dynamic and fast-evolving area of study and further technological advancements may open additional avenues to enrich the customer experience.

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