**INTRODUCTION TO NFTs**

Non-fungible Tokens (NFTs) have recently garnered tremendous popularity and are now considered “the future of commerce”. In short, NFTs are tokenized representations of digital assets that exist on the blockchain. They are non-fungible however, meaning they are not exchangeable. Due to blockchain’s immutability and security, NFTs are tamper-proof and counterfeit-proof. Then as every transaction on the blockchain is permanently kept, anybody may verify any NFT's legitimacy, authenticity, and provenance. Previously, digital asset creators would have struggled to establish a market value for their work due to constant theft, forgery, and resale. With NFTs, authors may now provide traceable evidence of ownership for their artworks. Just as hundreds of copies of the Mona Lisa exist across the world, with the original at the Louvre, NFTs safeguard digital art producers from copying and piracy. Aside from increasing value to artworks, NFTs can also guarantee royalties on subsequent sales, allowing creators to earn passive income from their work.

**MARKET POTENTIAL OF NFTs**

The NFT industry has experienced tremendous growth this year; in fact, the NFT market produced $2.5 billion in sales in the first half of 2021 alone. Many artists have also profited millions of dollars through NFT sales, with one example being Bored Apes Yacht Club (BAYC), which sold 10,000 NFTs at a price of 0.08ETH each in April 2021, earning them about US$2.2 million. The price of BAYC NFTs has risen since with 101 of them recently sold for $24.4 million at a Sotheby’s auction. Besides BAYC, even small scale NFT launches such as Nubloom made more than US$400,000. With such tremendous profit margins, there is no denying NFT's immense business potential. In the future, we foresee the NFT market will likely expand as more people eventually recognize its existence and value.

**Solutions to problems faced by artists trying to get into the NFT market**

1. **The lack of opportunity for NFT creators to build their own business brands and online presence**

Many artists have undoubtedly heard about NFTs at this point, but the majority lack the technical skills necessary to build a unique website or write an NFT smart contract to start selling their artworks independently. This hinders many artists from developing their own NFTs, and those that do usually gravitate towards huge NFT marketplaces like Opensea.  However, in a marketplace business structure, smaller NFT creators may find their artwork being drowned out and undiscovered by buyers. To make matters worse, there are only a few opportunities for NFT creators to establish their own business brands and online presence in the marketplace. Thus, it is harder for NFT creators to stand out from their competitors. Our solution is to create an NFT eCommerce builder targeted particularly at artists, assisting them in the construction of their own NFT e-commerce. We have modelled our site based on Shopify, a Software-as-a-Service business that enables anybody to create their own eCommerce website without any prior coding knowledge. We want to develop an NFT site builder that enables users to create their own NFT e-commerce site through the use of an intuitive drag-and-drop site builder. Artists will only need to choose a template and then update the contents on the site to create a fully functioning NFT e-commerce site. Apart from the user interface, we will manage all backend operations, including the generation of NFT smart contracts and server maintenance. This enables artists to focus on creating art and developing their own online presence without having to worry about technological complexities.

1. **Lack of technology that enables easy mass production of images**

To increase the efficiency of creating images, our solution uses generative art algorithms to quickly generate thousands of unique images based on a handful of partial images. Essentially, artists will create a folder representing each component of the final image, such as the head, torso, and clothing. The folder will later include layers with several versions of the object. Then, as illustrated in Appendix 1, different layers are mixed and matched before being layered on top of one another to produce a complete image. Without this algorithm, users would have to do this manually which would be extremely inefficient and time-consuming if the artist aims to create hundreds of images. This enables artists to save time and effort, increasing their profit margins. Additionally, users may input the names of each attribute and allocate certain rarities to specific layers. By assigning the rarities, some NFTs will be more valuable than others, giving them more resale value.

**Future improvements**

As our business grows, we can expand out to include these types of assets so that we can target the bigger creative markets such as the music or game industry. One such trend that has gained recent traction would be the NFT play-to-earn games such as Axie Infinity. We can expand our site to target game developers to help them to create NFT play-to-earn games, using their purchased artwork as in-game characters. We can also create an online store for exclusive products where users can buy merchandise such as T-shirts with their NFT images printed on them.

**Financials**

The profits in the NFT industry are immense and the cost for an NFT project is incredibly low. Assuming that an NFT creator created his own artwork, the only fees that they are required to pay are the fees for deploying a smart contract (around $500) and the fees for hosting a website (around $20). NFT creators can potentially earn returns on investments of more than 1000x. On our site, we aim to reduce the upfront cost for users, by only charging them a $20 sign-up fee and half of the contract deployment cost upon the first mint, so there is little risk for customers in the event that their project fails. We will also charge users 10% of all proceeds. The biggest cost that we will face is the deployment cost which can cost about $500 per project. To solve this problem, we will only deploy contracts when the first person purchases an NFT. This helps us to save on deployment fees in the event that no NFTs are minted.

We have calculated our startup cost to be in the range of $50,000 - $60,000, and we can break even with just 1 successful project. With NFT projects earning millions of dollars, our 10% fee can be very lucrative, especially with our low startup costs. With just 50 projects making an average of $200,000, we will already be able to make $1 million dollars. Furthermore, there is very little cost in deploying each additional site as they are based on a template. This makes our site very scalable. Maintenance costs are also very low as we only need to maintain the servers and hire a few developers to maintain the site. This combination of low expenses, good scalability and high earning potential allow us to earn very high returns on investment.

**Implementation route map**

First, we will need to hire UI/UX designers and software engineers to build the platform. It will take approximately 2-3 months for them to create the full site. We will then use Google and Facebook advertisements to specifically target digital artists. As the site gains traction, we will be able to break even within 2 months with at least $50,000 in revenue earned and 50 users. Over the next few months, we will hire more designers and developers to build more templates and add in additional features such as the NFT game creator so that we can reach a larger target audience.

**Appendix:**

<https://boredapeyachtclub.com/#/>).

<https://www.nubloom.space/mint>>