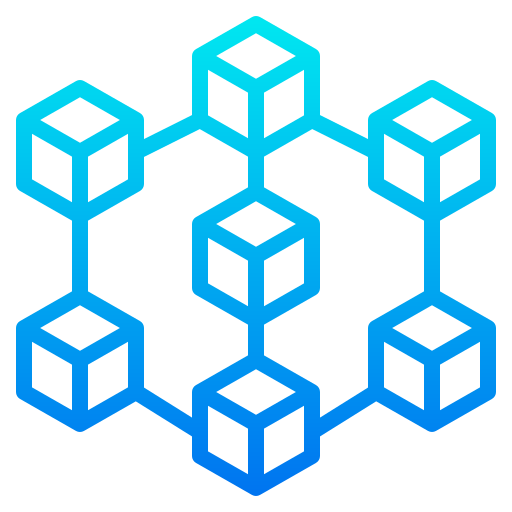
Emerging Trends - The Blockchain



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# Introduction

This document was created to see what new technology was gaining traction and get more information about the subject. The options given by the assignment were:

* Domain-Driven Design
* Blockchain
* Programming Paradigms
* Artificial Intelligence and Machine Learning
* Quantum Computing

After looking through the options, I decided to pick: **The Blockchain**. The main reason being that for my individual project, I am creating an NFT project based on the Rinkeby blockchain. Before diving into the research, some general knowledge about the blockchain has to be known.

## What is the blockchain

The blockchain is a relatively new concept published in 1991 by Stuart Haber and W. Scott Stornetta. It uses a distributed ledger technology. This technology allows data to be extended but prevents alterations in past entries. This makes the blockchain transparent and more trustworthy. The first implementation of the blockchain was Bitcoin in 2008, created by a person or group with the alias Satoshi Nakamoto.

## What is an Non Fungible Token (NFT)?

Just like crypto currency, Non Fungible Tokens (NFTs) are also stored on a blockchain. But unlike crypto currency, each token is Non Fungible like the name suggests. This means that each NFT is unique and different, but all bitcoins are the same. If you trade one bitcoin with another bitcoin, you will still end up having the same thing. NFTs are typically deployed on the Ethereum network, but other blockchains like polygon and solana also support NFTs.

The first NFT was called “Quantum” and was created by Kevin McCoy in 2014. The NFT was a GIF of a pixelated octagon with many circled in them pulsating in different colors. There was no interaction for holders of the Quantum NFT compared to more recent NFT projects. Current projects let their holders make use/interact with their NFT by letting them enter giveaways, breed their NFTs, or stake them to gain currency or items.

# Research Questions

There are many factors involved in making an NFT project successful. A good minting start and community management are a couple examples. Arguably, interactivity plays just as big of a role, as it keeps the holders active in the project even after the minting phase. A method of keeping holders active is letting them use the NFT in a game. Adding a game element can also make the project more unique and in turn more successful.

This all resulted in the following main research question:

**How can an NFT project increase its holders interactivity by adding a game element?**

To answer this questions, sub-questions have been made:

* What Blockchain is most suitable for launching an NFT project with game elements on?
* How can an NFT projects be created with being a game as its focus?
  + Literature Study
  + Prototyping
* What are smart contracts and how do they change an NFT project?
  + Code Review
* What type of games are most suitable with using NFTs?

The intended deliveries with this research is the answer to the main research question: how can NFT project can increase holders interactivity by adding a game element.

Alongside the research questions, an example project will be created as suggested in canvas. This project will be focussed on NFTs with the goal of understanding the basics of the blockchain and NFTs.

## What Blockchain is most suitable for launching an NFT project with game elements on?

There are multiple blockchains where NFT projects can be launched on. For deciding which blockchains were possible options, I looked at different popular marketplaces and their blockchain support.

The most popular marketplace for NFT’s is OpenSea. The main blockchain

## How can an NFT projects be created with being a game as its focus?

The first step to this research is getting to know how to actually create an NFT project. This project will be used for testing purposes and will for that reason not spent time on getting a following. In a real project that wants to be successful, keeping the community happy is a must. If there are no people who want to be holders, the project will lost traction and slowly fail. It is however good to know what real NFT projects and communities do to keep the interaction within the project.

Find blockchain

Make imgs

Save on ipfs

Pinata cloud

Smart contract

Minting dapp

Supported blockchains (31-05-2022) - <https://support.opensea.io/hc/en-us/articles/4404027708051-Which-blockchains-does-OpenSea-support->