Blockchain, NFTs, and Universities:
How to Navigate and Monetize

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AMSTER
ROTHSTEIN
& EBENSTEIN LLP
Intellectual Property Law

Mon. Feb. 21, 2022, 10:45 a.m.-12:15 p.m. CST

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Nifty Gateway

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AGENDA

- NFTs and the Blockchain (and the Metaverse)

- Where can I monetize my NFT

- UC Berkeley's experience with NFTs

- Questions?

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NFTs and Blockchain Technology

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What is a NFT?

⊕ Powered by Gemini

Cryptopedia® | Your trusted source for all things crypto.

Summary

A non-fungible token (NFT) is a cryptocurrency token that is indivisible and unique. One NFT cannot be interchanged with another NFT, and the whole cannot be broken down into smaller parts and used. NFTs offer a myriad of options for creating and trading digital assets — such as original artwork and blockchain-integrated collectible games like CryptoKitties. NFTs are useful for proving the scarcity and provenance of rare assets, both digital and in the real-world. Non-fungible tokens are mainly built on Ethereum using the ERC-721 token standard.

SOURCE: https://www.gemini.com/cryptopedia/nft-non-fungible-token-crypto-collectibles#section-fungible-and-non-fungible-characteristics-of-crypto-tokens (quoted with permission)

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NFT – Non-fungible <u>Token</u>

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Fungible v. Non-Fungible

Fungible

Non-Fungible
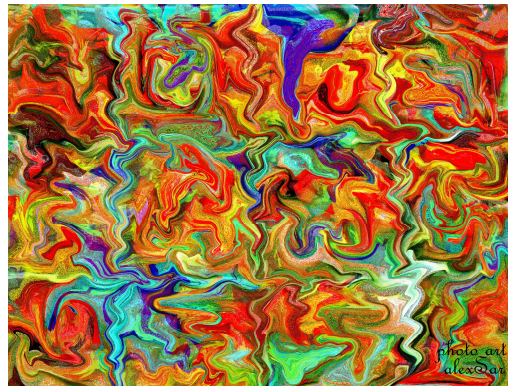
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Divisible v. Indivisible

Divisible

Indivisible

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Collectible

Trading Cards

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Figurines

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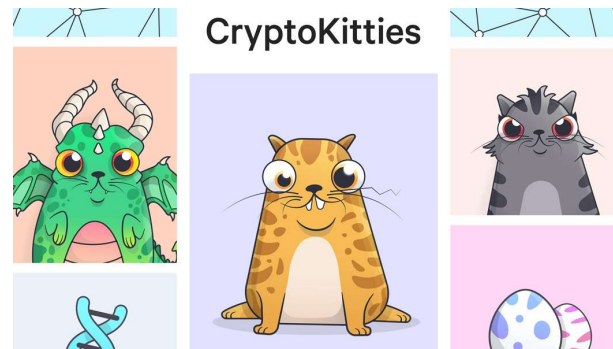## Blockchain Examples

Fungible

Non-fungible

CryptoKitties

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What are benefits/risks of using NFTs?

Risks   Benefits

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Benefits: Secure

This Photo by Unknown Author is licensed under CC BY-SA-NC

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Benefits: Easy to verify ownership

12

Benefits: Hard to destroy

13

Benefits: Can make interesting new items

Source: https://www.cryptokitties.co/search?include=sire

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Benefits: Smart Contracts Can Be Used to Develop New & Innovative Monetization Strategies

Traditional Model

Smart Contracts
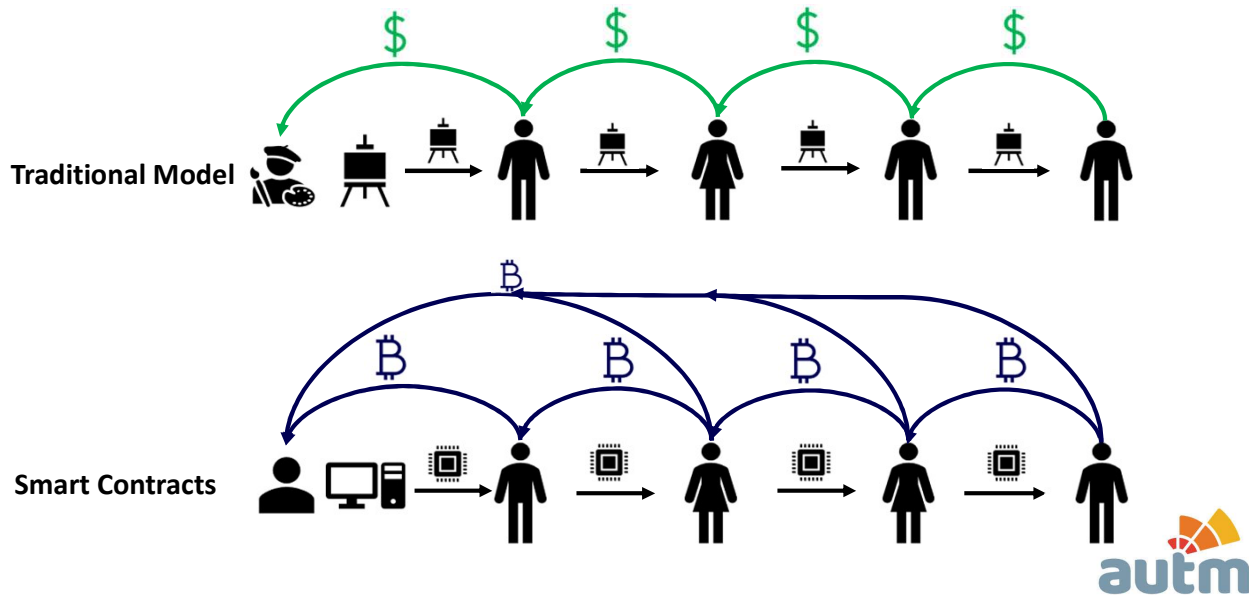
15

Benefits: Ready and Existing Market and Marketplaces

Source: https://niftygateway.com/marketplace?filters[onSale]=true&sortBy=highest (shared with permission)

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Risks: No restriction on viewing

17

Risks: Copyright and Trademark Clearance
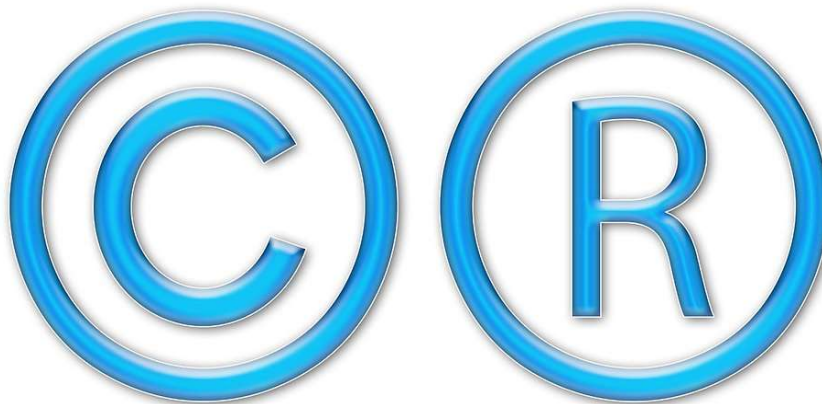
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How are NFT's Used?
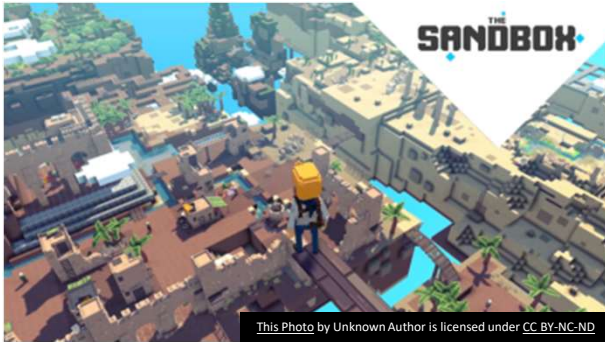
In the metaverse, NFTs will be used to create unique:

- Avatars
- Buildings
- Objects
- Fashion accessories
- And more ….

This Photo by Unknown Author is licensed under CC BY-NC-ND

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Where can I monetize my NFTs?

Nifty Gateway is owned by Gemini

This means you can count on their world leading security technology to keep your nifties safe.

SuperRare

OpenSea

Rarible

• • •

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How can I monetize my NFTs

Patrick McLaren, COO

Nifty Gateway

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Agenda

1. Buyer Motivations
2. Seller Motivations
3. Venues
4. Market Outlook
5. Thinking Forward

Parrot Island by Roger Dean

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Why buy an NFT?

- Utility
- Patronage
- Collection
- Provenance and Authenticity
- Access
- Visual Enjoyment
- Social Value
- Community
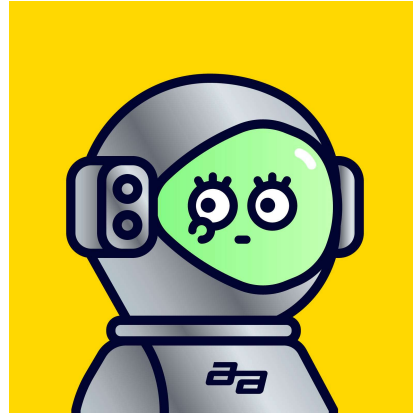
Awkward Astronaut #9259

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Why is art valuable?

- Social Value
- Cultural Significance
- Physical Inputs =/= $ outputs
    - Not based on the value of the material used to make the art
    - Concrete, plastic sculptures, paint on paper, paper trading cards
- Artificial Scarcity
- Does exclusive use provide tangible value?

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Hype Driven Markets

- Streetwear
- Art
- Collectibles
- Sustainability of these markets?
- Overvalued? Up to you….

"INSERT SUPREME LOGO HERE"

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Utility

- Digital Identity
- Access
    - Ticketing
    - PoaPs
- Games/online spaces
- Events
- Display
- Financial Collateral

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13
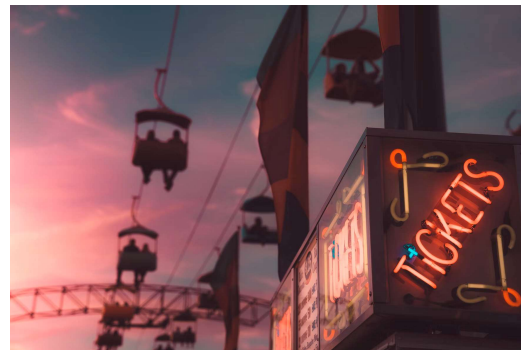
Authenticity and Provenance

- Distributed Authenticity
- Image verification - IPFS
- Blockchain native image storage

PoA by x0r

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Dynamics

- NFTs can change based on external variables
    - Merge
- Gamification
- Self/network generated traits
- Smart contract based dependencies
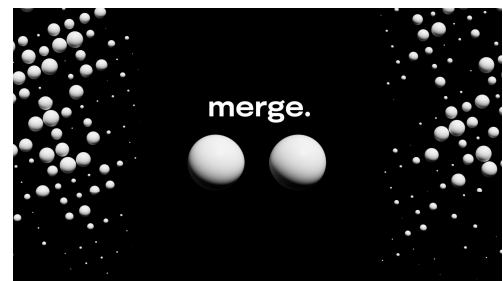
Merge by Pak

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Investment

- Investment as art
  - Indexes and basketed NFTs
- Financial instruments/profit shares/DAOs
- Physical backed goods
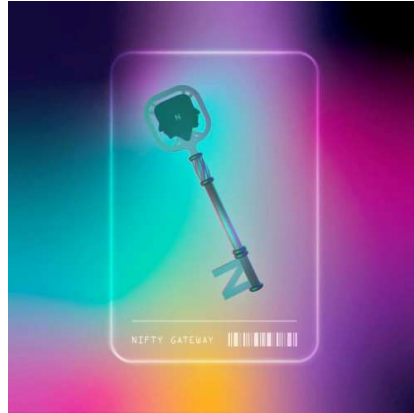
Key to Life Returns by Nifty Gateway

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Why Sell an NFT?

- IP Monetization
- Digitally Native Content
- Brand/Social Engagement
- Novelty
- Transferability
- Ease of Access
- Cross Border value transfer
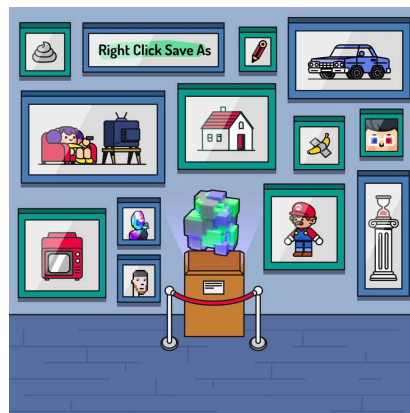
Right Click Savers by Deekay

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How to sell?

- Conceptualize
- Choose Blockchain and protocol
- Choose marketplace
- Create Smart Contract
- Marketplace sale or on demand mint
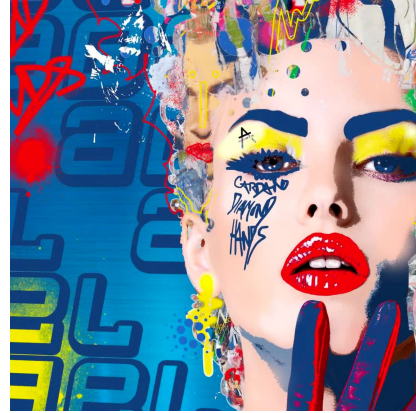
ADA Angel by Miss Al Simpson

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Technical Variables

- Blockchain
  - Ethereum
  - Sidechains/L2s
  - Solana
  - Tezos
- Protocol
  - ERC-721
  - ERC-1155
  - EIP-2981

The Switch by Pak

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Successful Projects

What has made these projects work so well?

- Bored Apes Yacht Club
- Axie Infinity
- Merge
- NFTGuild
- Decentraland
- UC Berkeley Nobel NFT
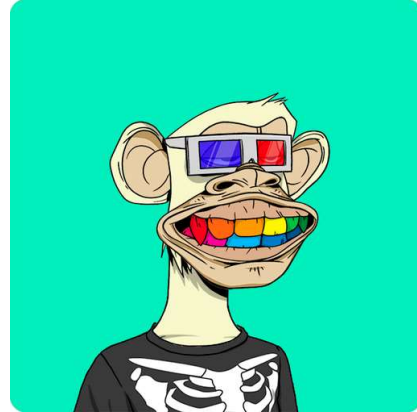
BAYC courtesy Tommy Kimmelman

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Market Outlook

- Estimated $25-30Bn in 2021
  - Projected $50Bn 2022
- Traditional Art Market: 30-50Bn
- JPMorgan Predicts $1 Trillion Metaverse market by 2050

Green Gateway by Robbie Trevino

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How much can I make?

- Digital Artist Pak grossed ~$340MM
- BAYC $1Bn in trading volume
- Mean price on Nifty Gateway - $600
- Mode price (market) - $0
- And everything in between...

Up, Up and Away by Lucho Poletti

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Where to sell?

- Nifty Gateway
- OpenSea
- Direct Sale
- Custom Marketplace

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Marketplace Differentiators

- Level of "Centralization"
- Ease of Use
    - Consumer
    - Creator
- Verification
- Blockchain Compatibility

Balance, Pressure, and
Tension by Paul Milinski

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All about the money?

- Not all NFTs are designed to be monetized
- Use cases for non-monetized NFTs
- Viability and Cost?
- NFTs as a secondary utility

Laughing Stock by Alotta
Money

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Long Term Outlook

- Just the beginning for utility, usability, and user experience
- Massive spikes in adoption, research, and businesses in NFT space
- Increased digital interaction and digital purchases
- Value for current NFT projects?

Fading Forward 3 by Greg Mike

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Innovations and Future Opportunities

- Blockchain Network Efficiencies
  - Staking
  - Decreased energy usage
  - Higher Transaction Throughput
  - Lower Cost
- Sidechains and semi centralized solutions
- EIP/blockchain functionality innovations
- Web3 ecosystem development

This Is Future Art by Future Art

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UC Berkeley's Nobel NFT

Mike Cohen,
Director, Innovation Ecosystem Development
UC Berkeley

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Agenda

1. What's an NFT ?

2. What's Berkeley's Nobel NFT ?

3. Why Berkeley Auctioned an NFT ?

4. Should Other Universities Auction NFTs ?

5. Q & A: Team, Design, Legal, Finance, Marketing
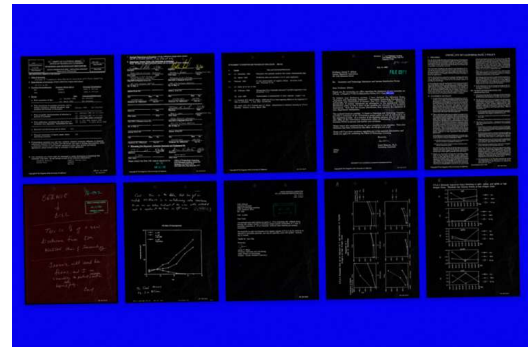
Berkeley News   Research ▾   People ▾   Campus & comm

CAMPUS & COMMUNITY, CAMPUS NEWS

First-ever auction of NFT based on Nobel Prize nets UC Berkeley $50,000

By Robert Sanders, Media relations | JUNE 8, 2021

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What's an NFT ? (1 of 3): *Start from First Principles*

1. **Ledgers** are lists (or database) of transactions recorded in chronological order

2. **Online ledgers** can be distributed, decentralized, shared, synched

3. **Blockchains** can be used as type of **online ledger** with interesting attributes (e.g. immutable, provenance)

4. Bitcoin & **Ethereum** are two types of **blockchains**

Ledger

Beeple NFT
Everydays: The First 5000 Days
purchased for $69M
on March 11
in Christie's auction

jack
@jack
just setting up my twttr
4:50 AM · Mar 22, 2006

151.6K   126.8K   Copy link to Tweet

Want to buy this tweet?
The highest offer is $2500000 by **@sinaEstavi**

$0.00   (₿ 0.0000)   OFFER

Counter-offer must be a minimum increase of $1 or 10%, whichever is more.
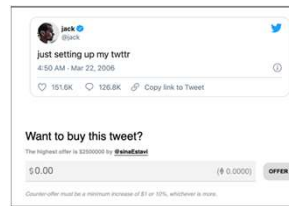
Jack Dorsey's NFT
First Tweet
purchased by Sina Estavi
on March 22 auction
for ~$2.9M
to charity

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What's an NFT ? (2 of 3): *Ethereum Tokens*

1. Entries in a blockchain can be referred to as **tokens**

2. **Ethereum tokens** (not Bitcoin tokens) can be programable or simple

3. **Ethereum tokens** are either **fungible** or **non-fungible**

4. Each **Fungible tokens** is indistinguishable & interchangeable

5. Ether (ETH) is a type of cryptocurrency based on **Ethereum fungible tokens**

Business

Buy This Column on the Blockchain!

The New York Times x NFT
(Kevin Roose, journalist)
purchased by @3FMusic
on March 25
in Foundation.app auction
for $0.5M
to charity

Edward Snowden's NFT
Stay Free
purchased by @PleasrDAO
on April 16
on Foundation.app auction
for ~$5.4M
to charity

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What's an NFT ? (3 of 3): *Non-Fungible Tokens & Online Art*

1. Each **Ethereum non-fungible token** (NFT) is unique & distinguishable
2. Each **Ethereum NFT** can record & transfer its ownership via e-wallets
3. **Ethereum NFTs** can link / point to **online digital content**
4. **Digital content** can be **art**
5. **Digital art** can be based online documents, messages, articles, photos, etc
6. Sales of **digital art NFTs** have been attracting attention & collectors

Sir Tim Berners-Lee's web source code NFT sells for $5.4 million
You can't buy the web, but someone bought this
By Richard Lawler | @rjcc | Jun 30, 2021, 4:15pm EDT

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What's Berkeley's Nobel NFT (1 of 3): *Invention Disclosure*

- When university researchers develop an invention
  then they submit an invention disclosure
  to their university IP office
  documenting information about the invention

- In 2006
  Berkeley researchers invented cancer immunotherapy &
  submitted a corresponding invention disclosure

- In 2018
  The Berkeley cancer immunotherapy inventor
  (James Allison) won the Nobel Prize in medicine

- The inventor described cancer immunotherapy as
  the new 4th pillar against cancer (after surgery, chemo, radiation)

Oct 1, 2018

Immunotherapy could be the "fourth pillar" of cancer treatments

Eileen Drage O'Reilly

Jim Allison, Photo courtesy of the University of Texas MD Anderson Cancer Center

Jim Allison, today's winner of the first Nobel prize for cancer therapy along with Kyoto University's Tasuku Honjo, says he expects immunotherapy to be the 'fourth pillar' in cancer treatments, along with radiation, chemotherapy and other gene-targeting treatments.

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What's Berkeley's Nobel NFT (2 of 3): *Digital Art*

- Berkeley created an online digital art image named **TheFourthPillar.png** based on historic documents from the cancer immunotherapy invention disclosure

- On May 26, Berkeley created a crypto e-wallet account (via MetaMask.com) & deposited ~$100 worth of ETH (via Coinbase.com)

- On May 27, Berkeley created (minted) an NFT on the Ethereum blockchain via an NFT art website (Foundation.app)

- Berkeley named that NFT *The Fourth Pillar* then connected it to the Berkeley e-wallet & *TheFourthPillar.png* stored on the Interplanetary File System (IPFS)

- Dispel myth: Ownership of *The Fourth Pillar* NFT is not ownership of the cancer immunotherapy invention IP or disclosure documents. It is only ownership of the copyright of TheFourthPillar.png image.
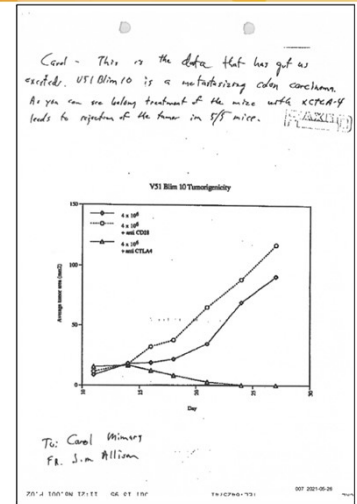
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What's Berkeley's Nobel NFT (3 of 3): *NFT Auction*

- On June 7, Berkeley listed *The Fourth Pillar* NFT for sale via an auction starting at 4 ETH (~$12K)

- During the following 24 hours + 30 minutes, The Fourth Pillar received 6 bids

- On June 8, Berkeley sold *The Fourth Pillar* NFT for ~$50K (& transferred wallet ownership to the new owner)

- *The Fourth Pillar* NFT is programmed as follows: First sale: 85% to UC Berkeley, 15% to Foundation.app Other sales **forever**: 10% to Berkeley, 5% to Foundation

- Distributed autonomous organization (DAO) named *FiatLuxDAO* purchased *The Fourth Pillar* NFT
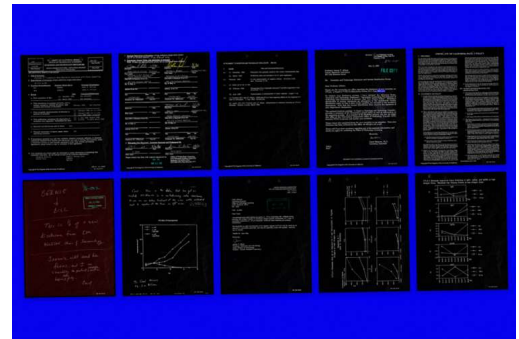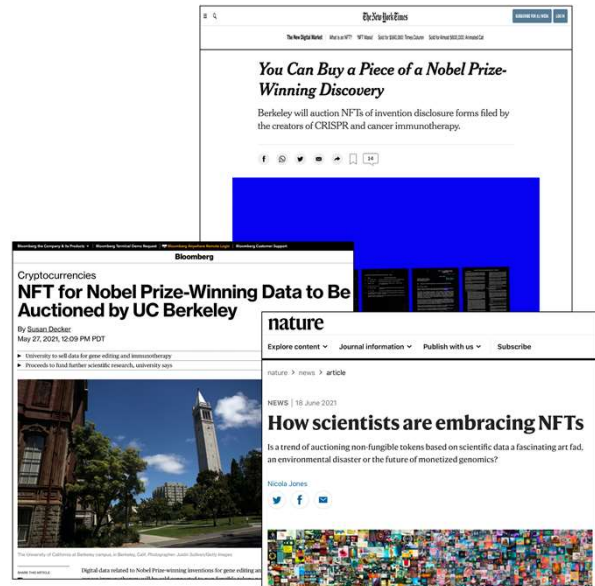
TheFourthPillar.png

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UC Berkeley's Nobel NFT: *Objectives*

- **1st Objective:**
  Increase awareness of Berkeley as a
  community of innovators, and
  campus for changemakers

- **Distant 2nd Objective:**
  Fund research & education
  (but not likely to be material to $1B budget)

- **Additional Requirement:**
  Be first in a new NFT category of
  digital art base on historic scientific docs

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UC Berkeley's Nobel NFT: *Assessment*

- Value as an experiment on cutting-edge

- Favorable PR worth $millions

- Some funding (esp. Blockchain@Berkeley student group)

- Stoked staff culture of innovation

- First alumni DAO

- Carbon footprint

- Artificial scarcity online & UC Berkeley image

- Possible other Berkeley NFTs

  - CRISPR-Cas9 (2020 Nobel in chemistry)

  - Zero Knowledge Proof (2012 Turing Award)
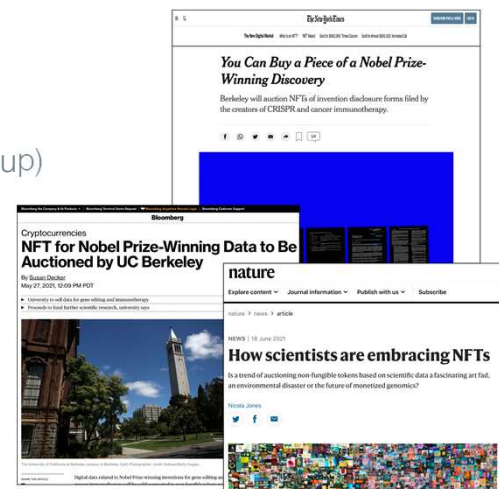
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Value of NFTs to Universities: *Artifact Auction*

- Value of NFT image auctions beyond experimentation?

  - Use value? Not really

  - Social status value? Maybe (depending on your disposition)

  - Resale value? Speculative

- Freakonomics podcast:
  Hidden Side of the Art Market, episode 486, "Lots of monkey business"

- Artificial Scarcity Online:
  NFTs & the Explosive Rebirth of Artificial Scarcity, Luke Dormehl, March 22, 2021

[Hyped over-priced] "NFTs are, on some level, patently absurd. Users aren't buying a work of art that they alone can enjoy. They are purchasing a nonexclusive addition to a public record that associates their name with a virtual item on a ledger that virtually no one will ever read. It's like a strange hyper-capitalist parody dreamed up by William Gibson. But, like the macro story at the heart of tech bubbles, they have a truthiness to them that makes them resonate."

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Value of NFTs to Universities: *Licensing IP*

- Panel with Experts on University Tech Transfer, Blockchain, NFTs, IP Law:
  IPwe's Advisory Committee for University Technology Transfer Explores Opportunities for Patent NFTs

- DeFi MOOC: Introduction to Blockchain Technologies
  Lecture 2 at onset:

  What is a blockchain?

  Abstract answer: a blockchain provides coordination between many parties, when there is no single trusted party

  if trusted party exists ⇒ no need for a blockchain

  Play (X)

  Lecture 2 Premiere: Introduction to Blockchain Technologies
  4,727 views • Premiered Sep 2, 2021   112   DISLIKE   SHARE   SAVE

  DeFi MOOC
  5.7K subscribers   SUBSCRIBE

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Questions About Berkeley Nobel NFT
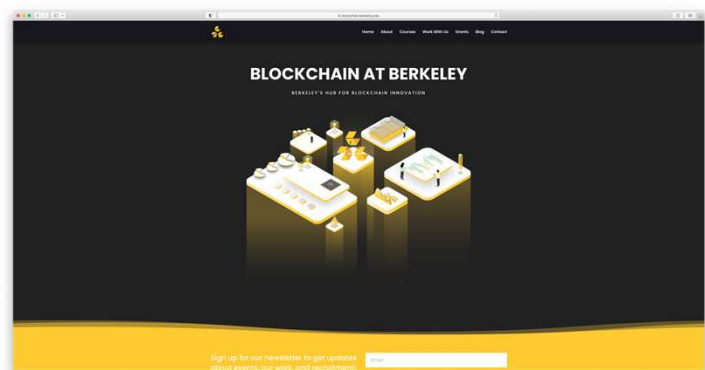
- Team

- Design

- Legal

- Finance

- Marketing

- Auction

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## Berkeley Nobel NFT : *Team >= 25 People*

- NFT isn't in job descriptions

- Diverse, cross-functional

- Staff, alums, students, profs

- What know & who know
  (e.g. Foundation.app people)

- Balance
  move fast & be first
  vs
  don't break laws or get sued

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Berkeley Nobel NFT: *Design*

- May 18: Raw Content from case files
- May 20: Prototype images for NFT art
- Cas9 NFT vs CIT NFT
- Graphic Artist:
    - May 25: 6 design alternatives
    - Avant Garde, brutalist style
    - Allison tilt
    - Neon blue with black & white "pops"
- NFT Project Team Requirements
    - Must be legible when zoomed-in
    - Must be digital art, not poster or advertisement
- Brand Compliance Staff:
    - May 26: design team meeting
    - Target bidders/audience: alums or collectors?
- Other
    - Name: *The Fourth Pillar*
    - Description
    - UC Berkeley page on Foundation.app website
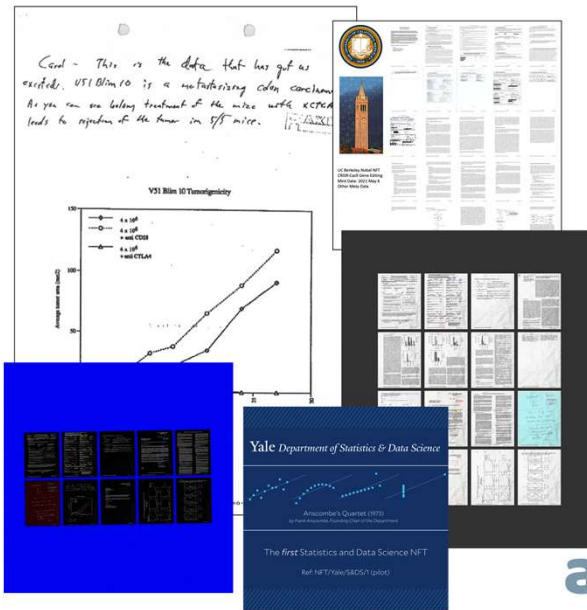

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Berkeley Nobel NFT: *Legal*

- NFT art copyright vs disclosure docs copyright vs invention patent rights; who owns what?

- CRISPR-Cas9 litigation

- Cancer immunotherapy (CIT) alternative

- Regulation (AML/KYC, Securities, etc.)

- Tax treatment on proceeds from sale of asset

- Auction payment not a charitable donation

- Auction website's ToS (financial, liability, IP)

- May 26 remove 4 pages of CIT NFT

- May 26 UC Berkeley Chancellor approval
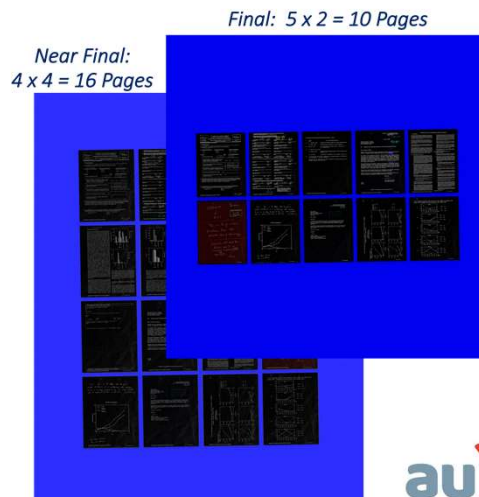

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Berkeley Nobel NFT: *Finance*

- Foundation.app auction platform:
  85% first, 10% subsequent FOREVER

- Wallet owner:

  - Individual (forever responsibility)

  - University of California (legal & policy issues)

  - UC Berkeley Foundation (non-profit)

- Wallet pass phrase

- Ether for gas to fuel minting & listing

- Not tax-deductible donation to UCB
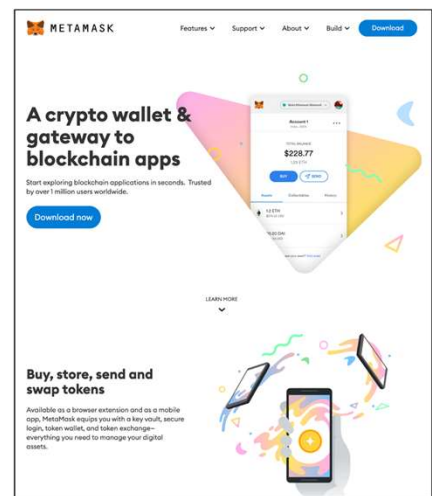
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Berkeley Nobel NFT: *Marketing*

- Positioning

  - Building awareness of UC Berkeley

  - Not about advertising or commercialization

  - Backlash on carbon use & hyped concept

- Press releases

- NY Times exclusive

- Twitter is key

- Press interviews

- Clubhouse app

- Need >= 2 whale bidders

- Results: IandE.berkeley.edu/nobelNFT
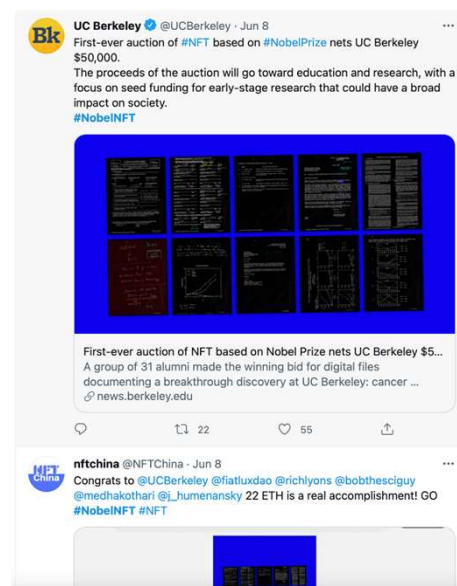
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Berkeley Nobel NFT: *Auction*

- Minting: Thursday May 27 (delayed 1 day)

- Reserve price: Tuesday June 1

- Marketing key

- Lining-up >2 whale bidders

- Fiatlux DAO: Sunday June 6

- Listing: Monday June 7 (delayed twice several days)

- Double overtime auction

- 6 bids up to 22 ETH = ~$50K

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Questions?

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Charles R. Macedo, Partner

AMSTER
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Mike Cohen, Director, Innovation
Ecosystem Development

Patrick McLaren, COO

Nifty Gateway

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