Why NFT Licensing is Hard

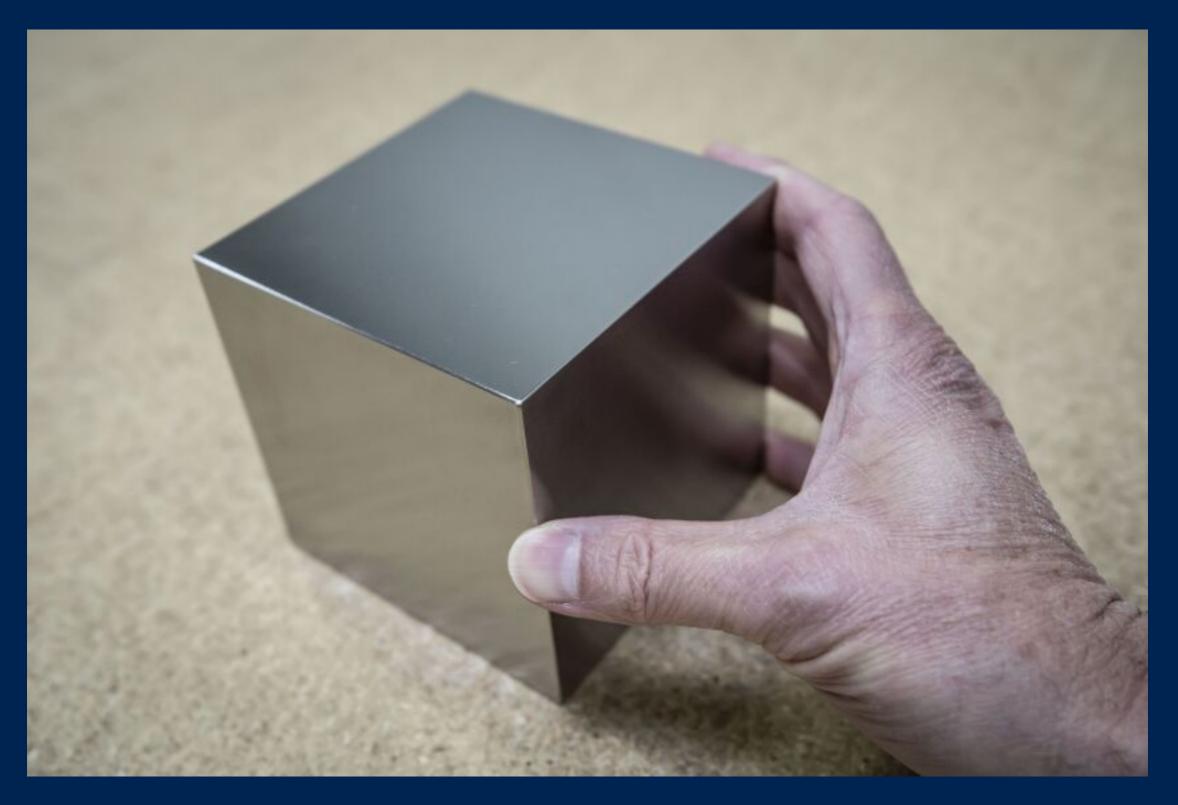IC3 Blockchain Camp 2023

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What is an NFT?

- "NFT" is shorthand for three different assets:

  (1) A smart contract on a blockchain

  (2) A tethered asset

  (3) The legal right to control the asset

- The hard part is keeping them in sync

A smart contract on a blockchain

⑦ Transaction Hash:	0x3feb5cbee8aae8abde269e46ca3061da5c4c1bbe1b0fa42f665c2e15f55c7c7d
⑦ Status:	✓ Success
⑦ Block:	✓ 13533865 **3946150 Block Confirmations**
⑦ Timestamp:	🕐 589 days 20 hrs ago (Nov-01-2021 10:26:57 PM +UTC)
⚡ Transaction Action:	▸ Bid Won: 1 NFT For 56.9 WETH On OpenSea
⑦ Sponsored:	
⑦ From:	0x9B814233894Cd227f561B78Cc65891AA55C62Ad2 (OpenSea: Royalties Distributor)
⑦ Interacted With (To):	0x7Be8076f4EA4A4AD08075C2508e481d6C946D12b (OpenSea: Wyvern Exchange v1) ✓
⑦ ERC-20 Tokens Transferred: 2	▸ From 0x3Fc145...c69788f7 To 0x4faA20...2e757d4F For 56.9 **$98,714.67** Wrapped Ethe... (WETH...)
	▸ From 0x4faA20...2e757d4F To OpenSea: Wallet For 7.1125 **$12,339.33** Wrapped Ethe... (WETH...)
⑦ ERC-1155 Tokens Transferred:	ERC-1155 For 1 of Token ID [360333058145653...] OpenSea Shar... (OPENST...) From 0x4faA20...2e757d4F To 0x3Fc145...c69788f7
⑦ Value:	◆ 0 ETH ($0.00)
⑦ Transaction Fee:	0.0447658692088425 ETH **$77.66**
⑦ Gas Price:	148.600395714 Gwei (0.000000148600395714 ETH)

An asset

A legal right

Desynchronization

- X has control of the private key to the NFT

- Y has physical control of the asset

- What happens if X≠Y?

How desynchronization happens

- A hacks X's wallet

- B buys the NFT from X …

  - … with a bad check

- C steals the tungsten cube from Y

- Y's warehouse burns down and the cube melts

- What should the legal system do?

Two kinds of answers

- The ledger is *authoritative*: courts will give the cube to whoever has control of the NFT

  - *No questions asked*

- The ledger is *evidence:* courts will override what it says in clear cases of fraud, theft, duress, or mistake

  - *Questions asked*

How copyright works

Work

Copy   Copy   Copy   Copy

How copyright works

- Copyright *is*:
  - Right to make new copies of the work
  - Right to distribute and perform the work
  - Right to make derivatives of the work
- Copyright *is not*:
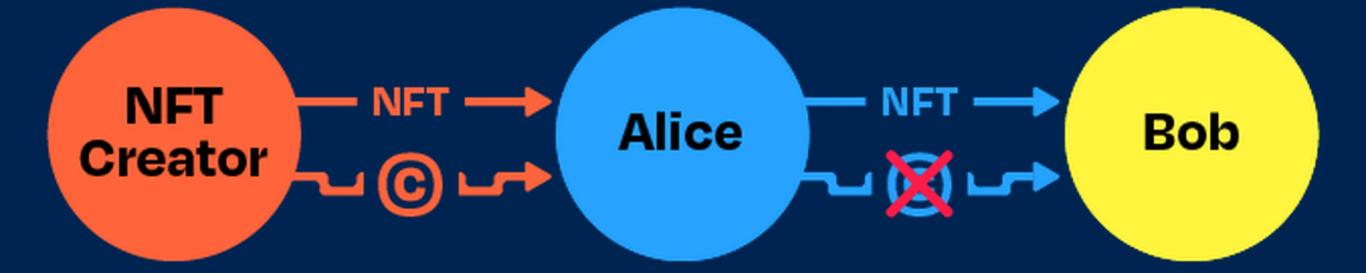 - Ownership of any particular copy

Are copyrights easier to tether than tungsten cubes?

- Recall that there are three assets in an NFT:

  (1) A smart contract on a blockchain

  (2) A tethered asset

  (3) The legal right to control the asset

- With a copyright (2) = (3)

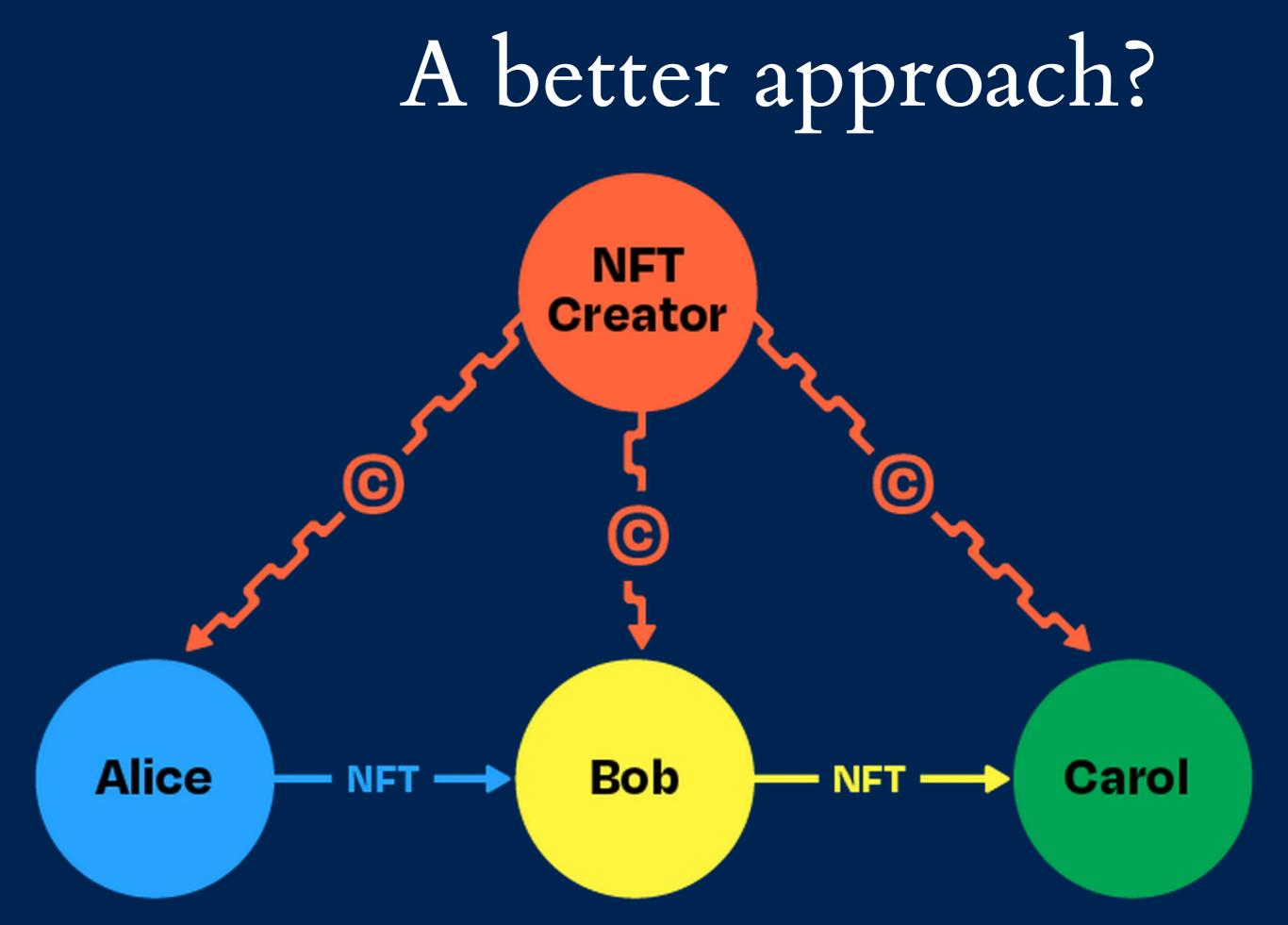 - So it might be easier to keep them in sync

Sadly, no

- The legal system still has to decide whether the ledger is *authoritative* or just *evidence*

  - The NFT can still be transferred due to fraud, theft, duress, or mistake

- The Copyright Act requires that transfers be "in writing and signed by the owner"

  - This is … hard to do on a blockchain

Private key ≠ signature

- When the NFT creator transfers it to Alice, they can also sign a legal document transferring the copyright to Alice

- But when Alice transfers the NFT to Bob, *all she does is call a smart contract function*

- This is probably not enough to transfer the copyright from Alice to Bob

A better approach?

A better approach?

- The NFT creator executes a copyright *license*

  - They give Alice the right to copy, perform, adapt, etc. the work

- When Alice transfers the NFT to Bob …

  - … the creator revokes Alice's license …

  - … and gives a license to Bob

Licensing practice on the ground

- Multiple projects have tried to do this

- They haven't always succeeded

  - E.g., the Bored Apes license is confused and contradicts itself

- We have tried to create a model in the Token-Bound NFT License

  - But without much uptake so far

Another alternative : forget copyright

- The "right-clicker" critique is that anyone can always save and copy a work tied to an NFT

- What if an NFT *isn't* tethered to copyright?

- Let anyone go ahead and copy the work!

- Only one person owns the NFT

Meet the art world

- Anyone can duct-tape a banana to a wall

- But only one duct-taped banana is Maurizio Cattelan's *Comedian*, which sold for $120,000

- Maybe NFTs are like fine art, where authenticity and uniqueness matter more than the ability to prevent copying

A note of caution

- If this is right, then it's not that important to worry about license terms and legal details

  - The people who are part of the scene know who counts as the "real" owner

- Buf if so, then the NFT fine-art model *does not generalize to other applications of NFTs*

  - The fine art market is weird and unique!

Concluding thoughts

- Some blockchain use cases are independent of (or even hostile to) the legal system

- But most NFT use cases depend on law

  - They need the legal system to do specific things (e.g. enforce copyright restrictions)

- The legal system has its own rules and logic

  - You can't just assume it does what you need

Questions