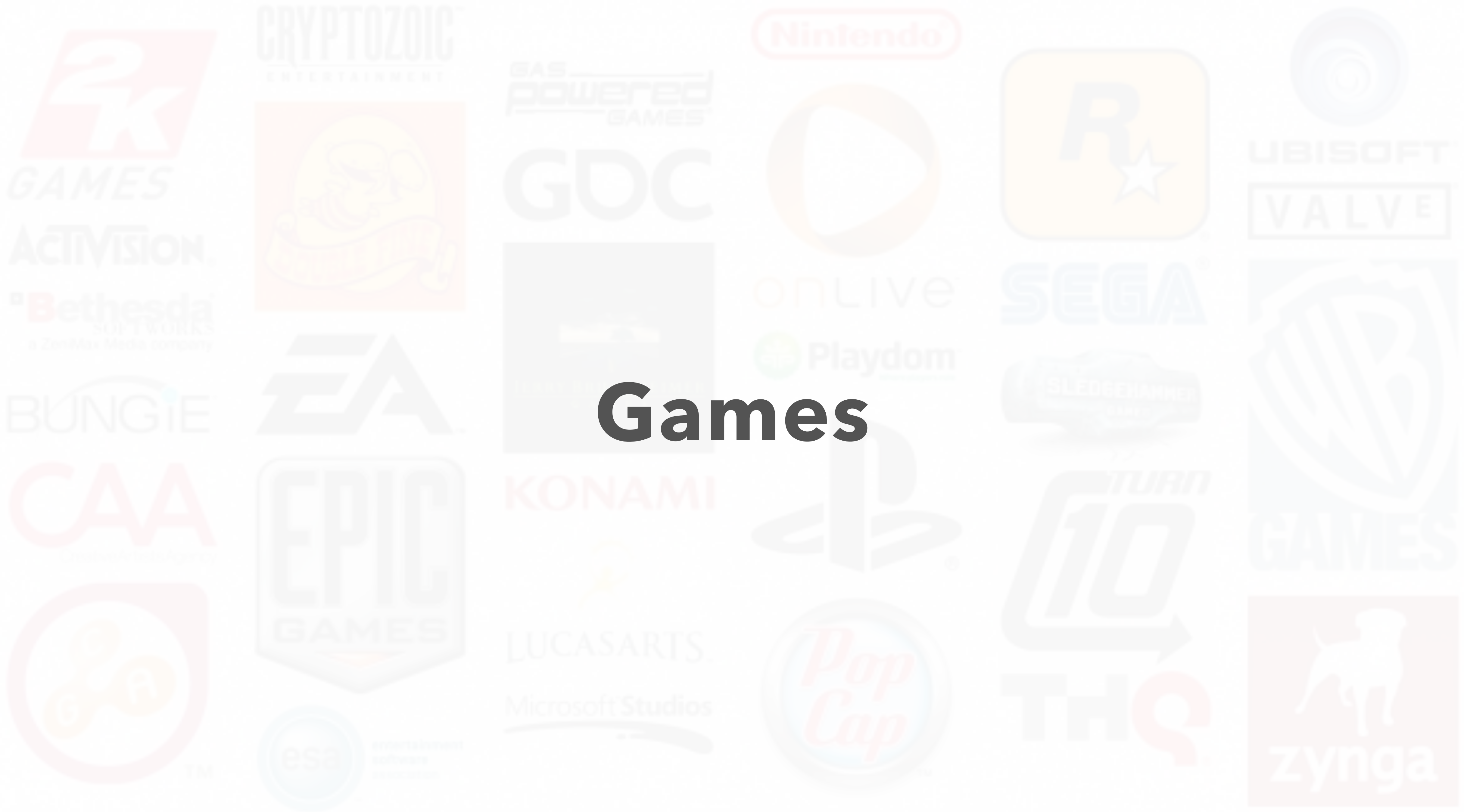


# **Lightning Network Powered Games**

# Games



# **Lightning as a Payment Method**

# How do games use money?

1. Pay to Play.
2. In-game purchases.
3. In-app currencies.
4. Trading.
5. Gambling.
6. Twitch / Spectator donations.



# How can **lightning** affect these?

1. Pay to Play.
2. In-game purchases.
3. In-app currencies.
4. Trading.
5. Gambling.
6. Twitch / Spectator donations.

# How do game developers and players benefit?

**1. Permissionless**

**2. Low fees**

**3. Microtransactions**

# Why are games an interesting application for **lightning**?

1. Fun!
2. Younger audience that “gets” it.
3. Cutting edge.
4. Digital.
5. Huge industry.

# Narrowing things down...

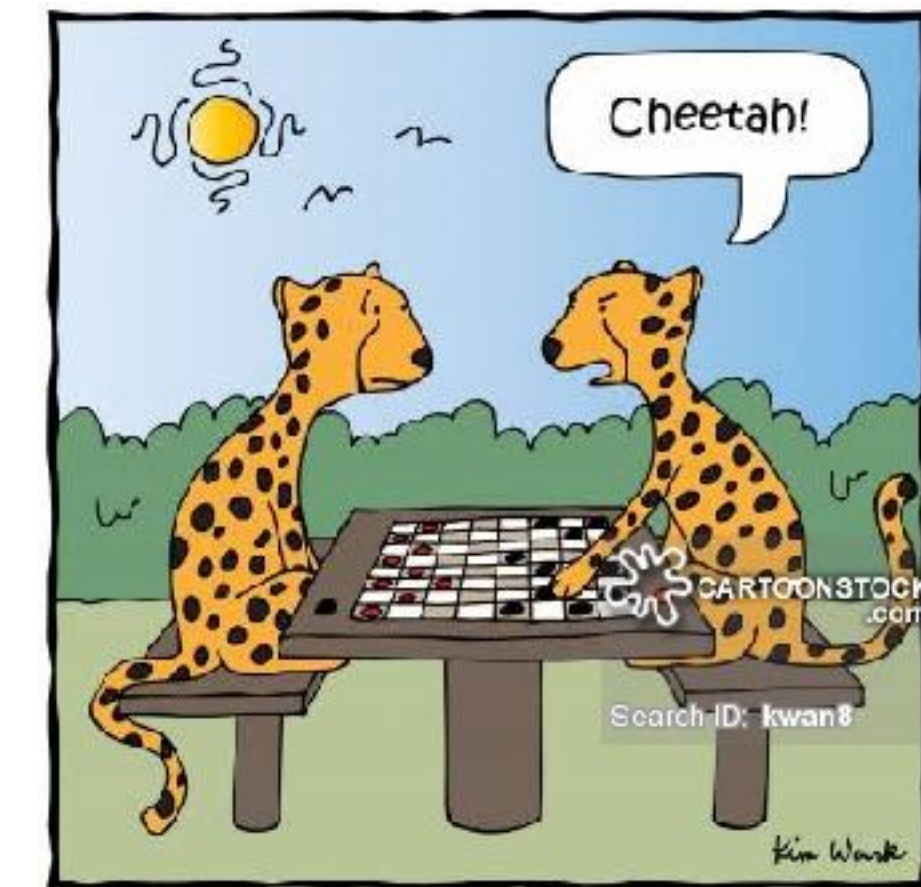
1. Indie.
2. Browser based.
3. Multiplayer.
4. Online.



# The Anatomy of a Multiplayer Game

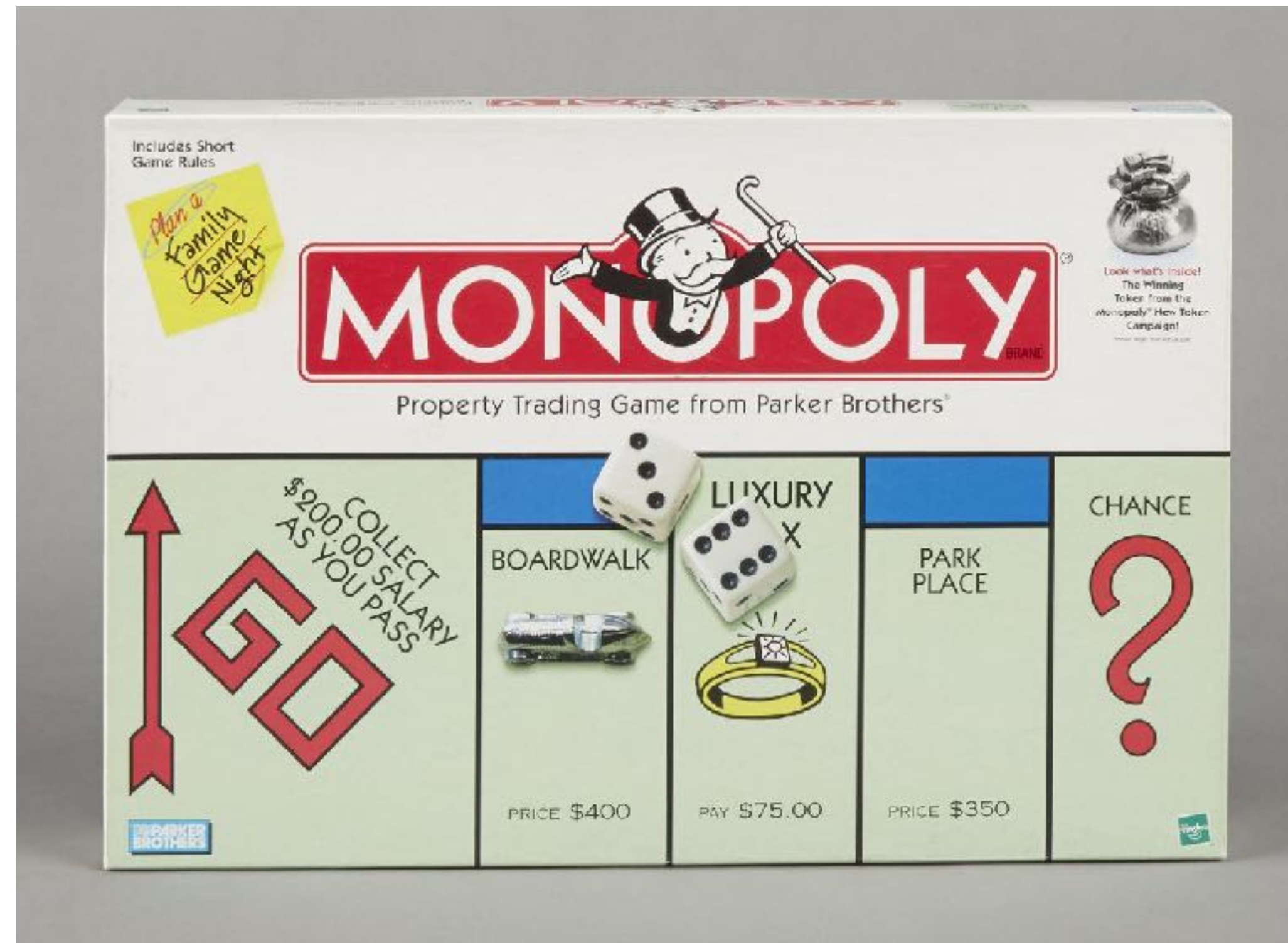


designed by freepik.com





# The Anatomy of a Multiplayer Game



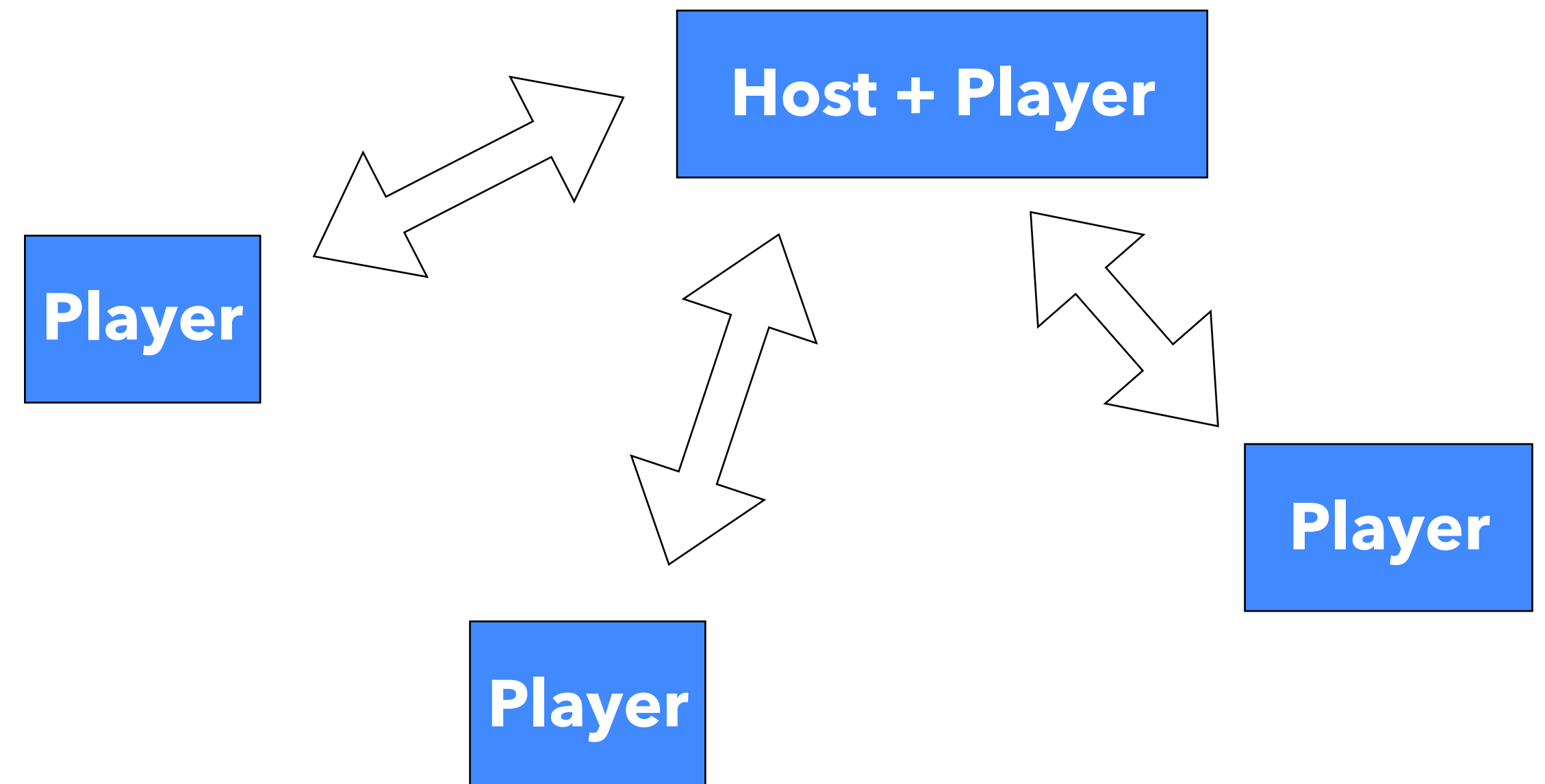


# The Anatomy of a Multiplayer Game





# The Anatomy of a Multiplayer Game

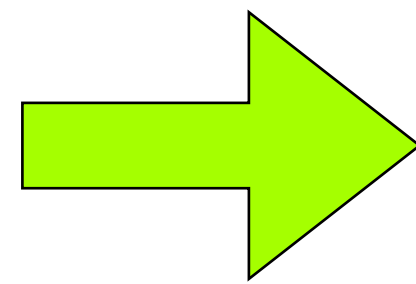




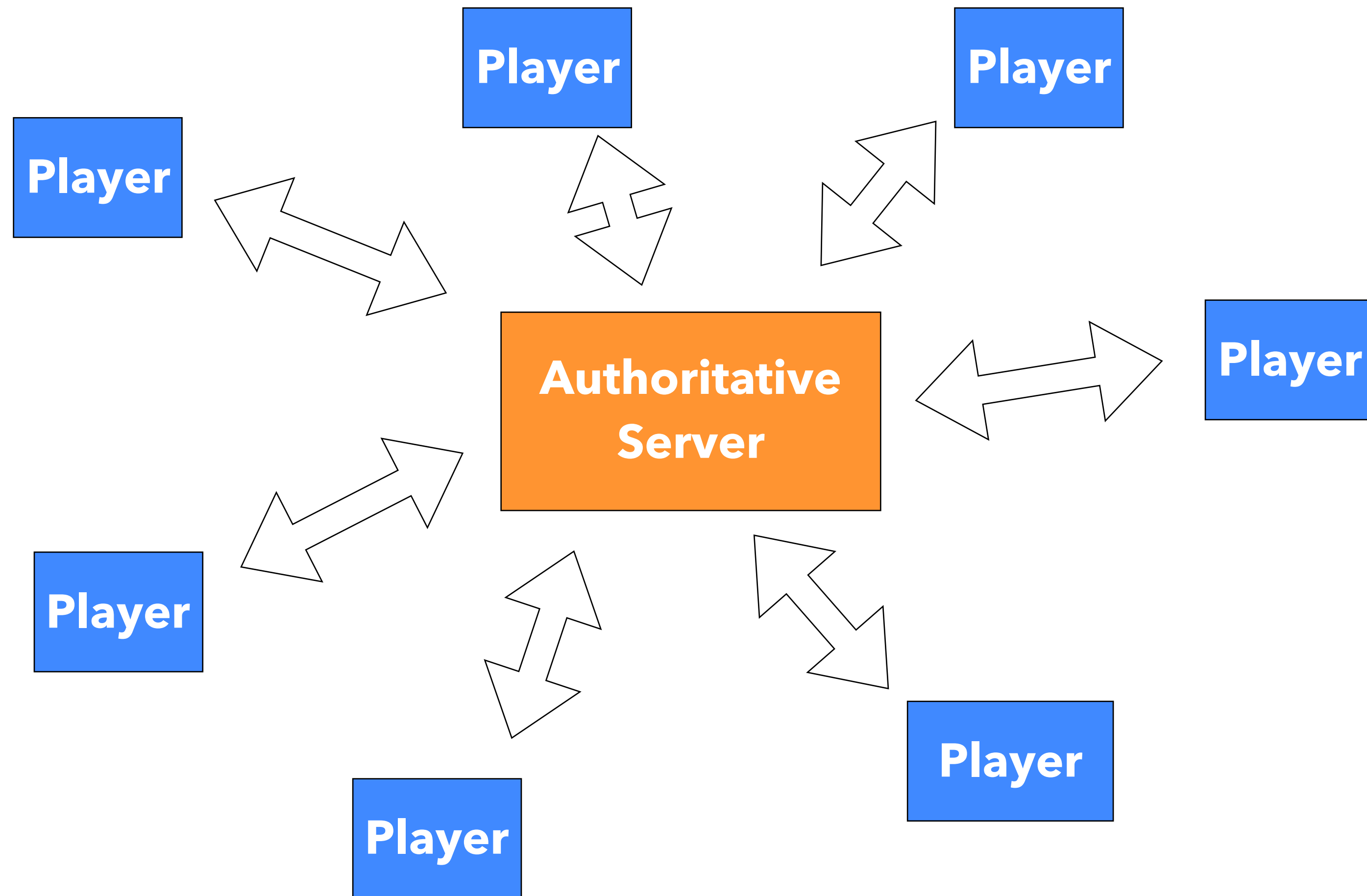
# The Anatomy of a Multiplayer Game



Authoritative  
Server



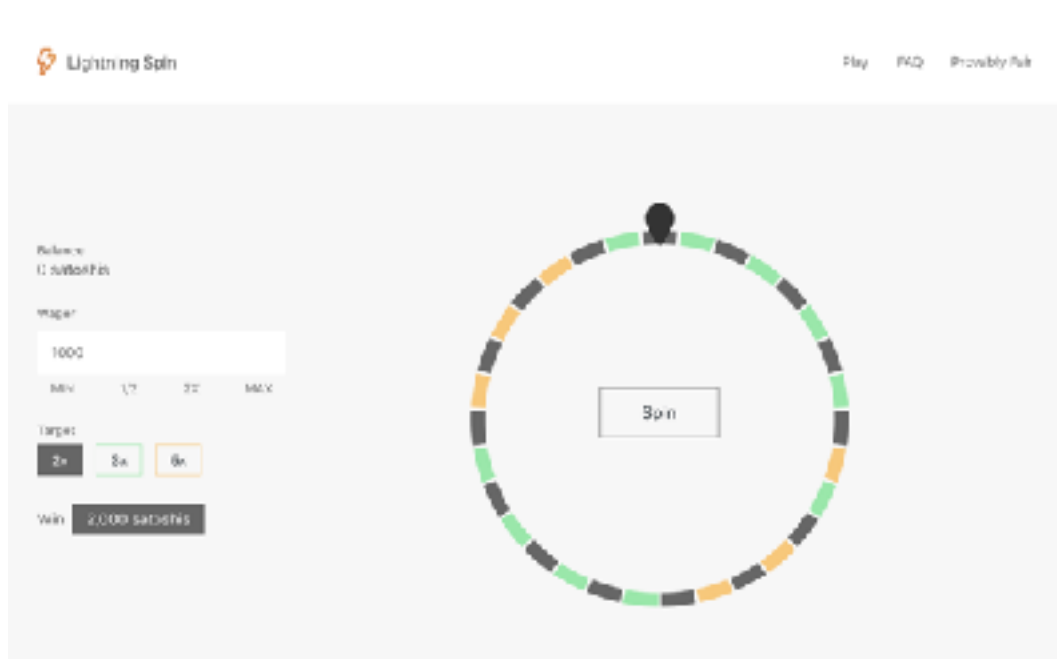
# The Anatomy of a Multiplayer Game





# Existing Lightning Games

Lightning Spin



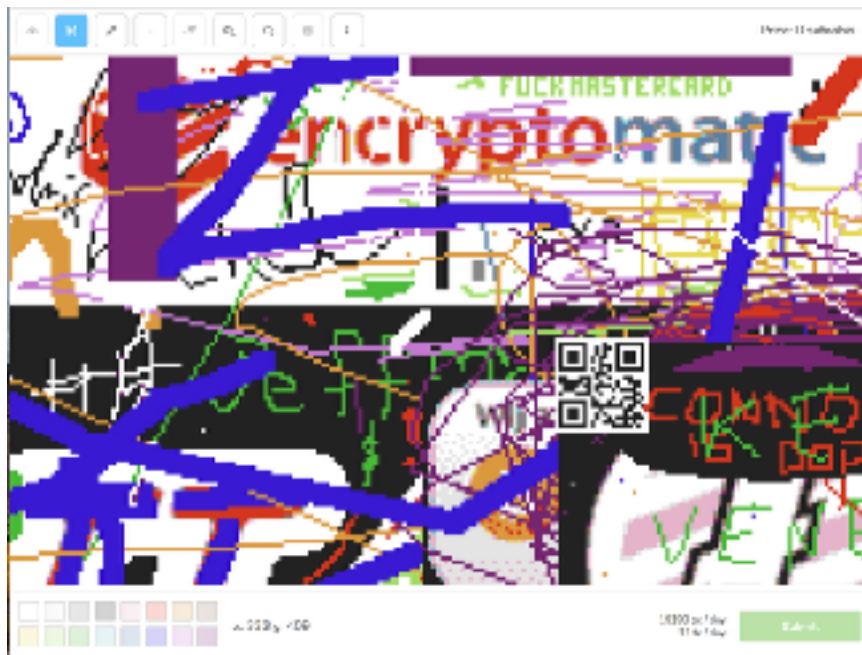
Poketoshi



Satoshis Games



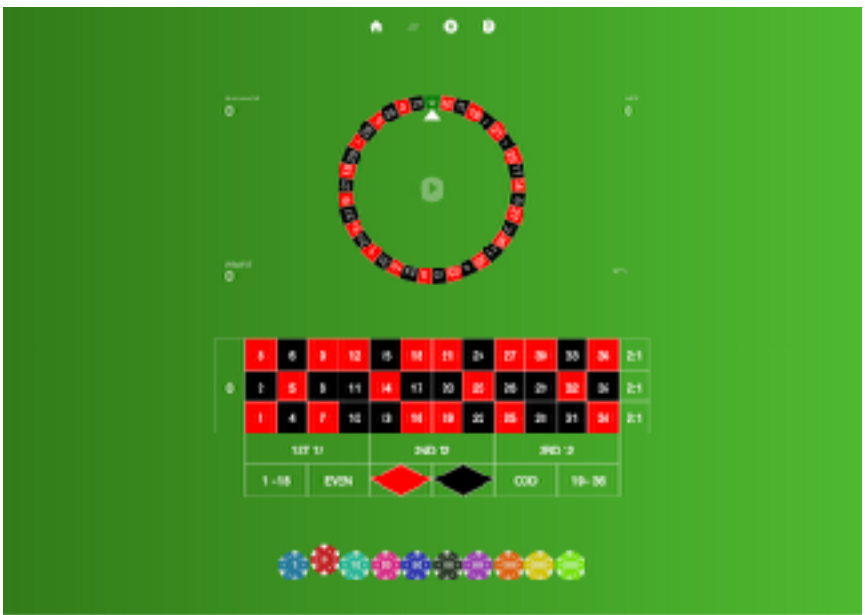
Satoshi's Place



Sarutobi

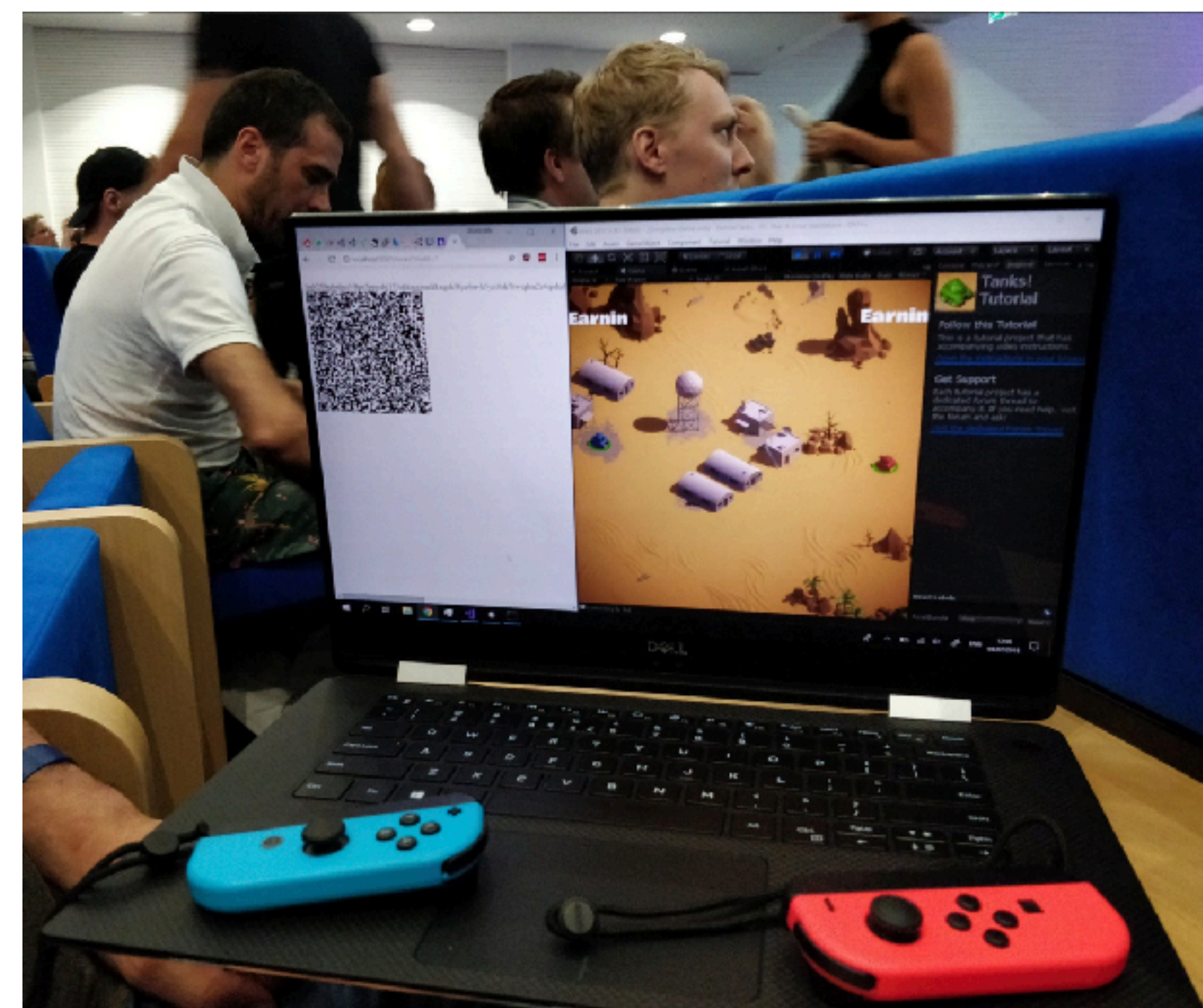


Lightning Roulette





# Experimental Stuff



# Tools and Plugins

## Game Engines



## Game Servers



## Lightning



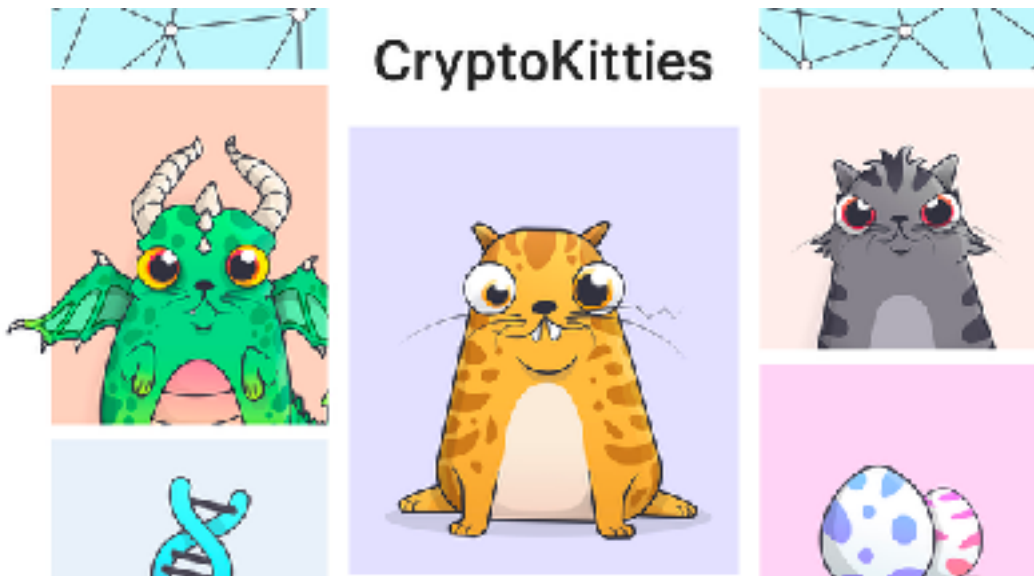
[donnerlab1/donnerunity](#)

[IndieSquare/btcpayunity](#)

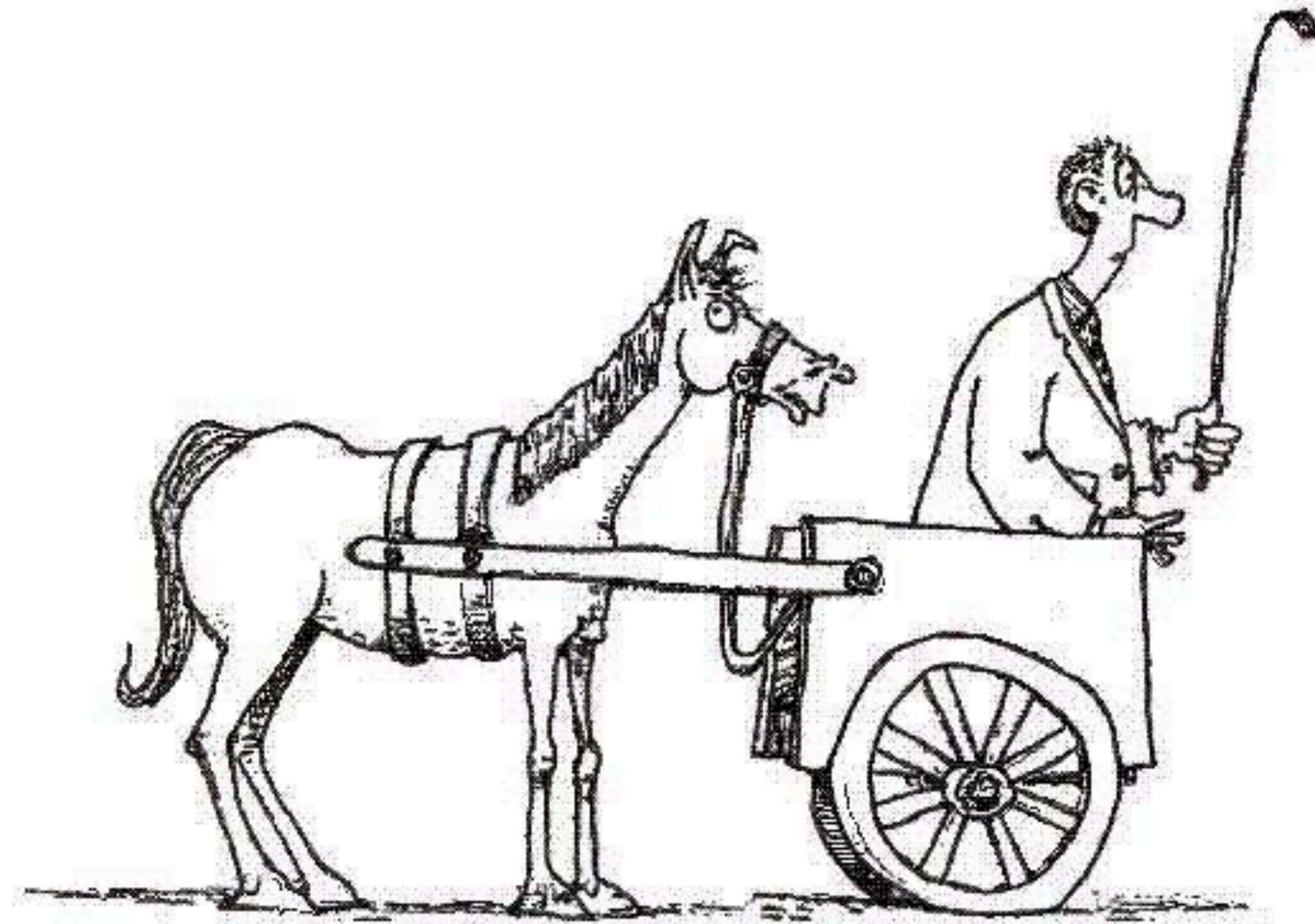
[alexbosworth/In-service](#)



# Digital Assets and NFTs



# Digital Assets and NFTs

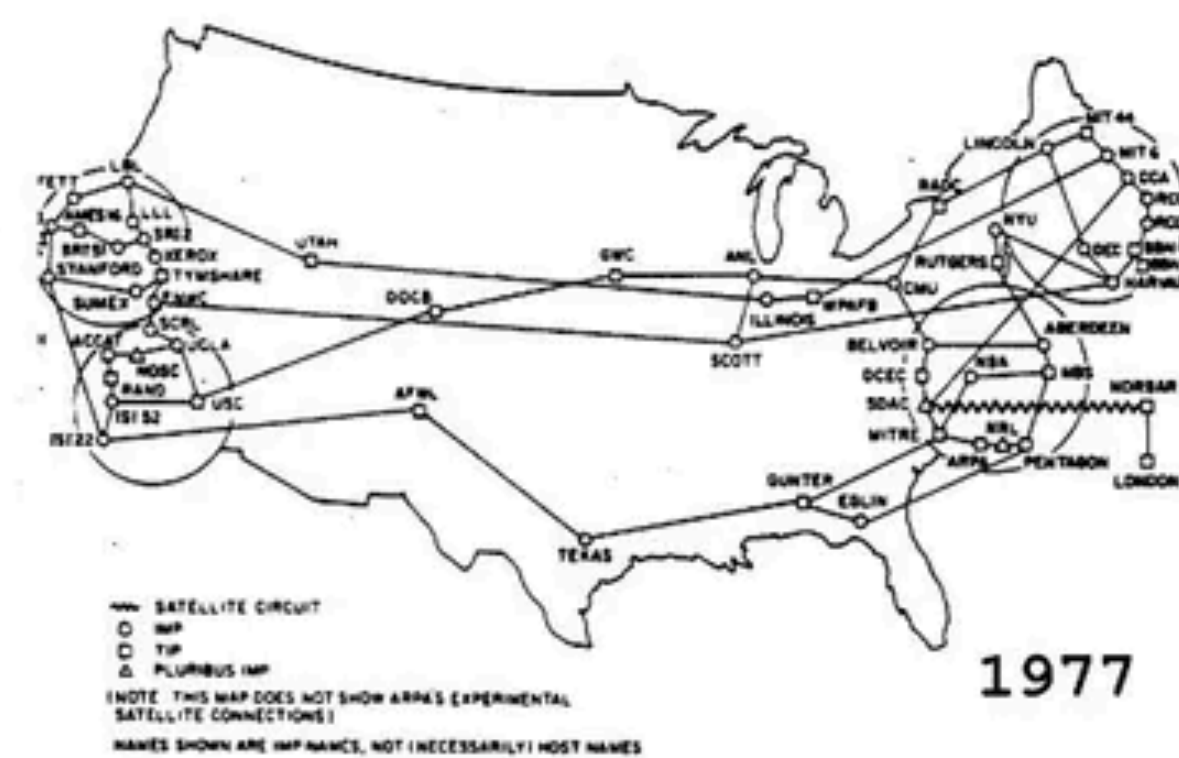
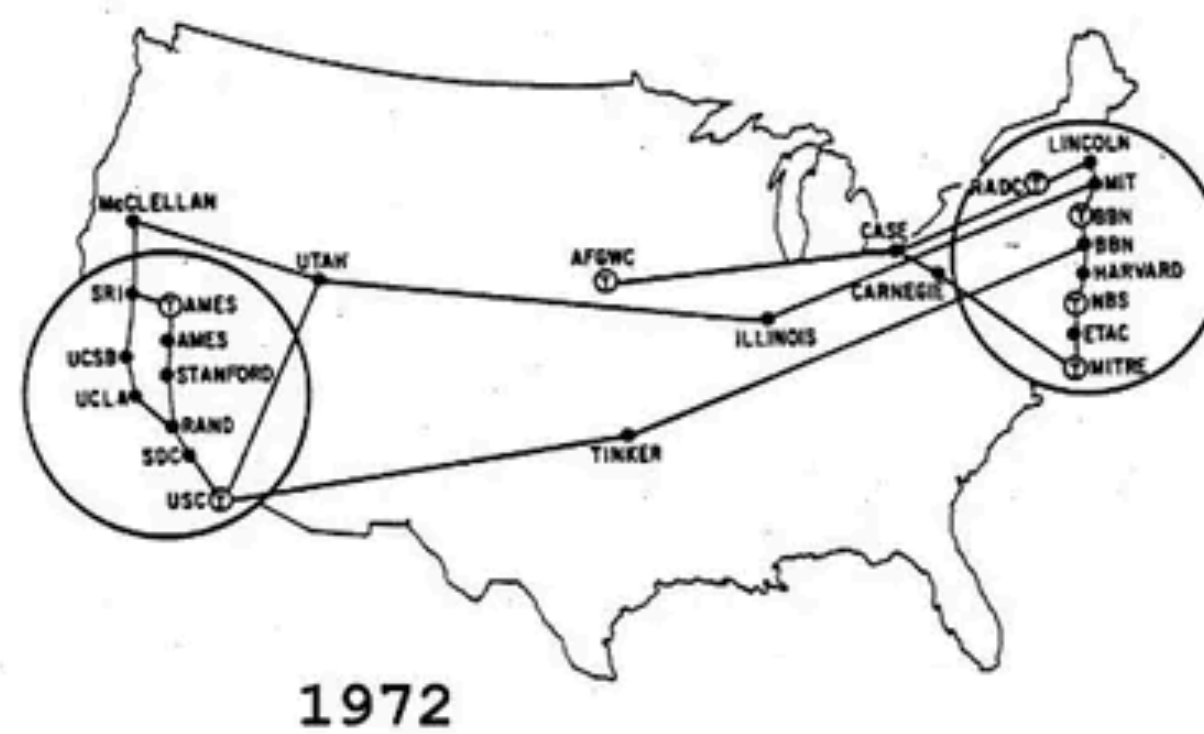
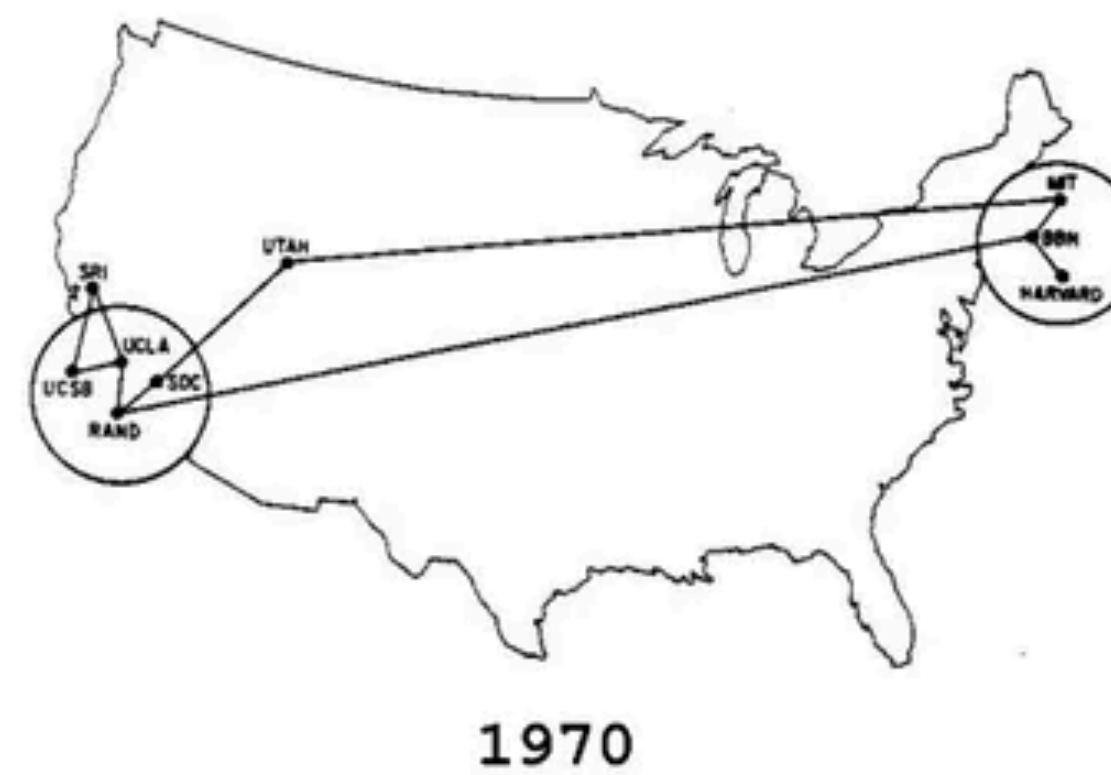
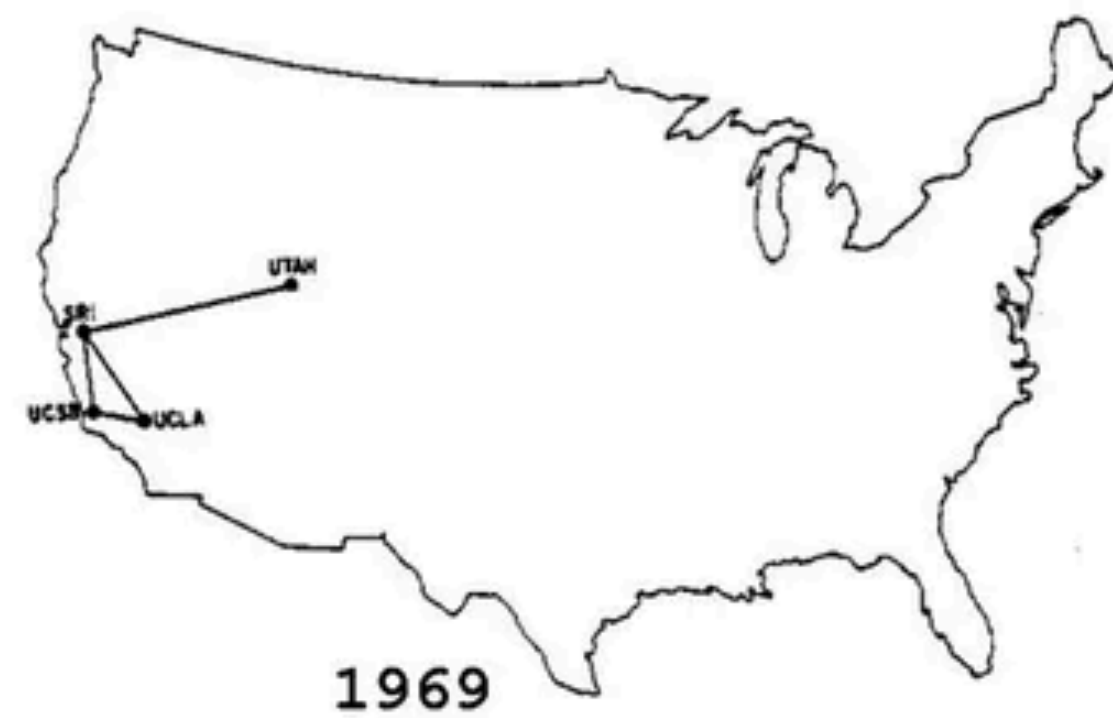


# Digital Assets and NFTs





# ARPANET



# Lightning Network

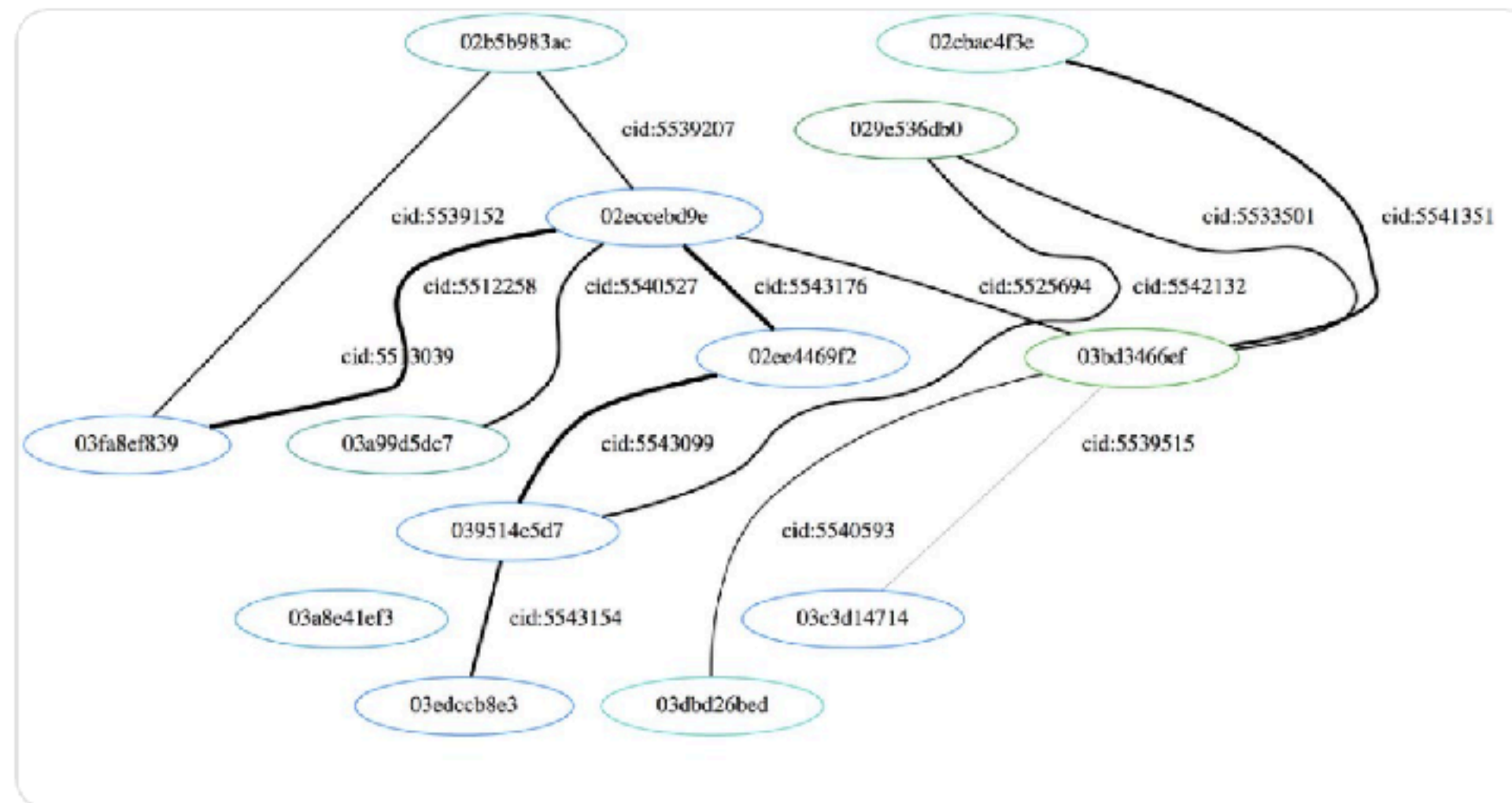


**Justin Camarena** ⚡  
@juscamarena

Following



So many reckless people. Lightning Mainnet.



3:00 PM - 14 Jan 2018

25 Retweets 109 Likes



10

25

109

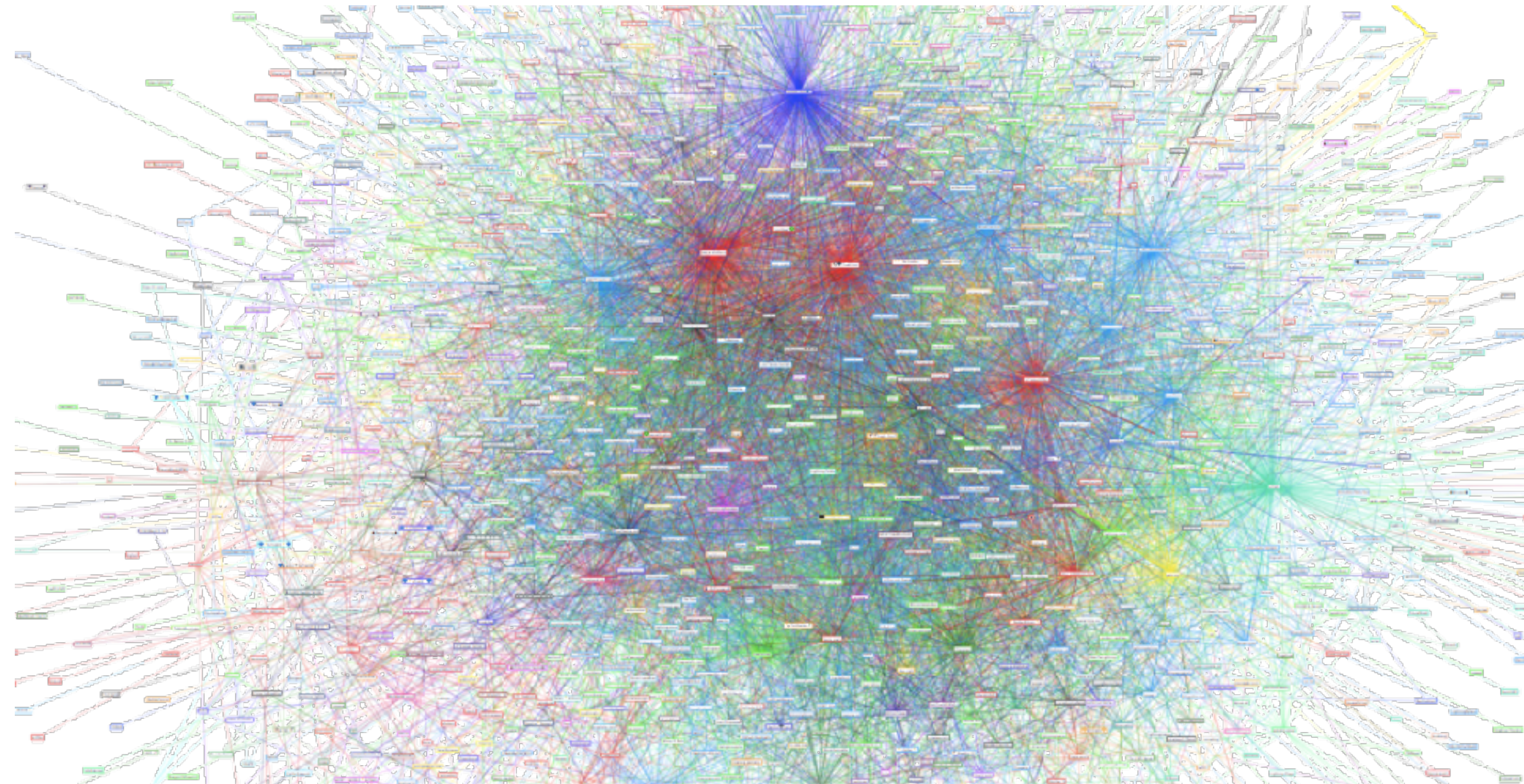


**14th January 2018**

13 nodes  
14 channels  
Capacity << 1 BTC



# Lightning Network



**October 19**

3,776 Nodes

9,322 Channels

111.84 BTC Capacity



# Explosive Innovation



**1990 - 2018 = 28 years**



**2016 - 2018 = 2 years**



**Questions?**