

L23: NFT Marketplaces

Module C: NFTs & Digital Assets

Blockchain & Cryptocurrency Course

December 2025

By the end of this lesson, you will be able to:

- Compare business models of major NFT marketplaces (OpenSea, Blur, Rarible)
- Understand listing mechanics and order book systems
- Analyze marketplace fees and royalty enforcement debates
- Detect wash trading and market manipulation patterns
- Evaluate the role of aggregators in NFT trading

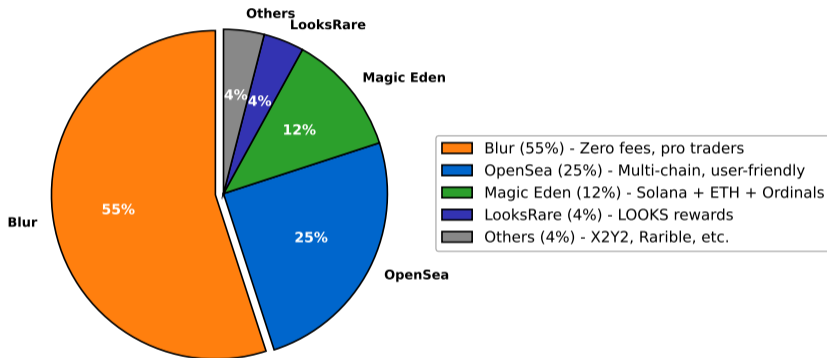
Major Platforms (by Volume, 2024):

- 1 **OpenSea:** Largest NFT marketplace, multi-chain support
- 2 **Blur:** Pro trader-focused, zero marketplace fees
- 3 **Magic Eden:** Solana-native, expanding to Ethereum
- 4 **Rarible:** Community-governed, aggregator model

Market Consolidation:

- OpenSea and Blur dominate Ethereum NFT trading (~80% volume)
- Smaller marketplaces compete on fees, rewards, and niche communities

NFT Marketplace Trading Volume Share (2024)



Blur overtook OpenSea in 2023 via zero fees and trader incentives

Founded: 2017, valued at \$13.3B (2022 peak)

Key Features:

- Multi-chain support (Ethereum, Polygon, Arbitrum, Optimism)
- User-friendly interface for creators and collectors
- Lazy minting (create NFTs without upfront gas costs)

Business Model:

- **Marketplace fee:** 2.5% historically, now optional 0.5%
- **Creator royalties:** Optional enforcement (formerly mandatory)
- **Revenue:** \$2.7B cumulative fees (as of 2024)

Launched: October 2022, rapid growth via airdrop incentives

Key Features:

- **Zero marketplace fees:** No commission on trades
- **Advanced trading tools:** Portfolio management, sweeping, sniping
- **Bid pools:** Aggregated liquidity for collection-wide offers
- **Airdrop rewards:** BLUR token distributed to active traders

Impact: Surpassed OpenSea in volume during 2023, forced industry fee reductions

Fixed Price Listings:

- Seller sets a “Buy Now” price
- Instant settlement (no waiting period)
- Most common listing type (~90% of listings)

Auction Listings:

- **English Auction:** Ascending bids, highest bidder wins
- **Dutch Auction:** Descending price until buyer accepts
- Used for high-value or uncertain pricing

Offer System:

- Buyers submit offers below listing price
- Common for negotiation and floor sniping

Traditional Order Book:

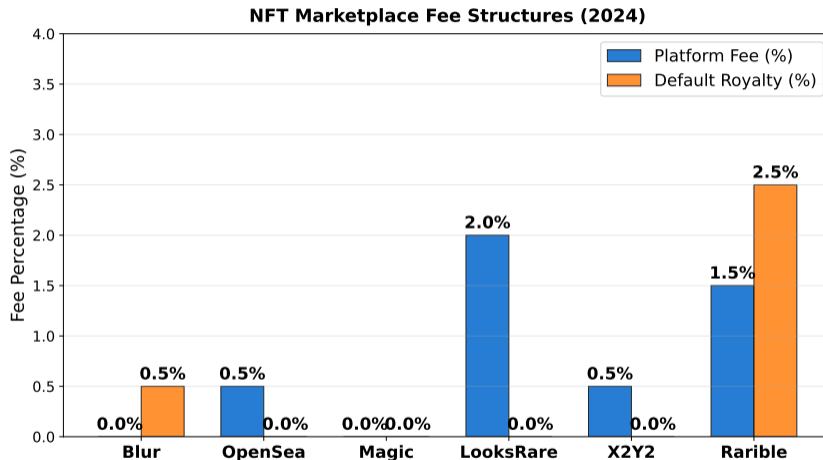
- Centralized database of buy/sell orders
- Matching engine pairs buyers and sellers
- Settlement on-chain when trade executes

OpenSea Seaport Protocol:

- **Off-chain orders:** Listings signed off-chain (no gas cost)
- **On-chain settlement:** Trade executes when matched
- **Gas savings:** Sellers pay no gas until sale completes

Blur's Bid Pools:

- Aggregated collection-wide offers
- Sellers can accept best available bid instantly



Note: Creator royalties are optional on most platforms (buyer decides)

Race to zero fees to attract volume; creator royalties now optional

Creator Royalties: Percentage paid to original creator on secondary sales

Historical Model (2017-2022):

- Marketplaces enforced creator-set royalties (2-10% typical)
- Revenue stream for artists and projects

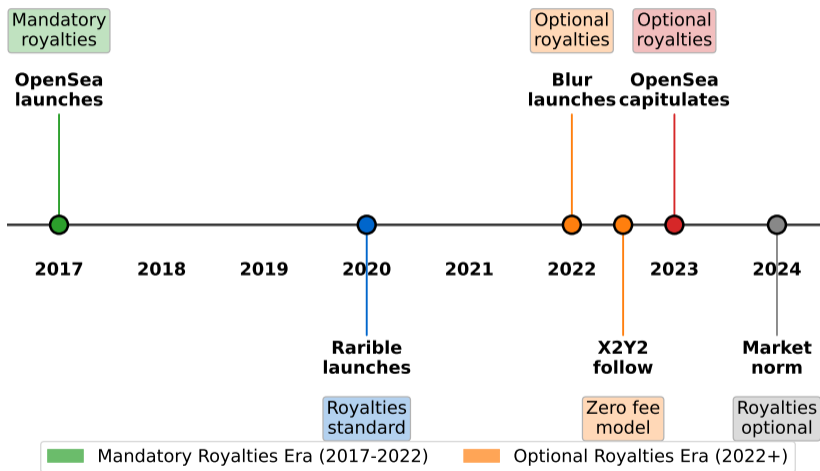
Shift to Optional Royalties (2022+):

- Blur launched with optional royalties (0.5% default)
- OpenSea capitulated in 2023 (optional royalties)

Arguments:

- **For optional:** Buyer freedom, lower transaction costs
- **Against:** Undermines creator compensation model

NFT Creator Royalty Enforcement Timeline



2022 marked the shift from mandatory to optional creator royalties

Technical Challenge: Smart contracts cannot force royalty payments

Why Royalties Are Not Enforceable:

- ERC-721 standard has no royalty mechanism
- Buyers can transfer NFTs directly (peer-to-peer) without marketplace
- Marketplaces voluntarily honor royalties (not protocol-enforced)

ERC-2981 Royalty Standard:

- On-chain royalty information (creator address, percentage)
- Marketplaces can query but not forced to enforce

Experimental Solutions:

- **Operator Filter Registry:** Blocks transfers via non-compliant marketplaces
- **ERC-721C:** Programmable transfer restrictions in contract

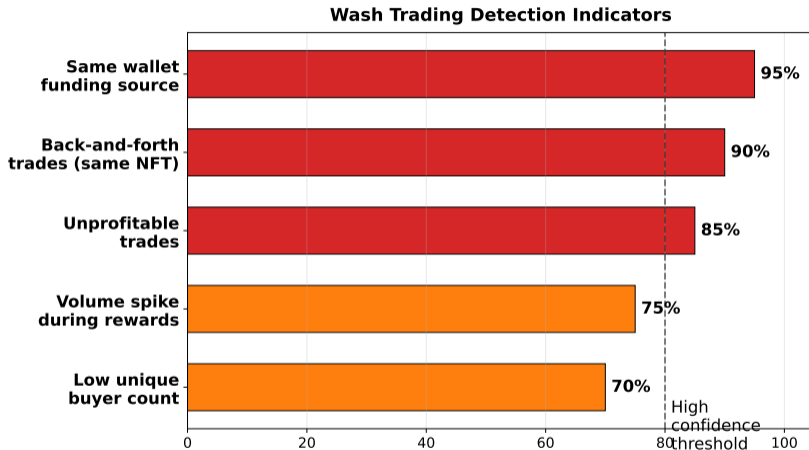
Wash Trading: Buyer and seller are the same entity (self-trading)

Motivation:

- Inflate collection volume and visibility
- Manipulate floor price upward
- Farm marketplace reward tokens (e.g., LooksRare, X2Y2)

Mechanics:

- 1 Trader owns NFT in Wallet A
- 2 Trader buys own NFT using Wallet B
- 3 Net cost: Marketplace fees + gas (often subsidized by rewards)



Tools: Nansen wallet analysis, Dune Analytics SQL queries, Chainalysis forensics

Wallet clustering and funding source analysis are most reliable indicators

LooksRare Launch Strategy:

- Reward traders with LOOKS tokens based on volume
- Incentivize switching from OpenSea (vampire attack)

Unintended Consequence:

- Traders wash traded to farm LOOKS rewards
- Daily volume surged to \$400M+ (mostly wash trading)
- Organic volume remained low (j10% of reported volume)

Analysis (Chainalysis, 2022):

- Estimated 95% of LooksRare volume was wash trading
- Single wallet traded \$23M in one day (same NFT repeatedly)

Lesson: Volume-based rewards create perverse incentives for manipulation

Aggregator: Platform that sources listings from multiple marketplaces

Major Aggregators:

- **Gem (acquired by OpenSea):** Multi-marketplace sweeping
- **Genie (acquired by Uniswap):** NFT shopping cart
- **Blur:** Hybrid marketplace/aggregator

Benefits:

- Best price discovery (compare across platforms)
- Batch buying (sweep floor listings efficiently)
- Single interface for multiple marketplaces

Impact: Reduces marketplace lock-in, pressures fees downward

Floor Price: Lowest listed price for any NFT in a collection

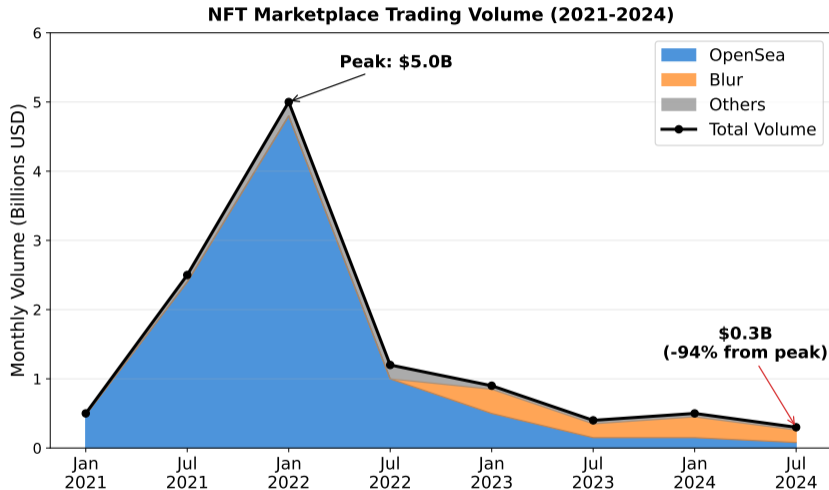
Why Floor Price Matters:

- Proxy for collection value and market sentiment
- Entry point for new buyers (“buying the floor”)
- Psychological support level (panic selling if broken)

Floor Price Manipulation:

- **Artificial support:** Whales buy floor listings to prevent drops
- **Floor sweeping:** Coordinated buying to create FOMO

Healthier Metrics: Median price, 7-day sales volume, unique holder count



Market down 90%+ from 2021 peak; Blur dominant since late 2022

Common NFT Marketplace Scams:

- 1 **Phishing sites:** Fake marketplace clones steal wallet signatures
- 2 **Malicious approvals:** Trick users into approving scam contracts
- 3 **Fake collections:** Counterfeit versions of popular NFTs
- 4 **Airdrop scams:** Fake NFTs with malicious links

Protection Measures:

- Verify marketplace URL (bookmark official sites)
- Check collection verification badge
- Review smart contract permissions before signing
- Revoke unused approvals (revoke.cash)

Multi-Chain Expansion:

- **Ethereum:** Dominant NFT ecosystem (70%+ market share)
- **Solana:** Low fees, fast transactions (Magic Eden)
- **Polygon:** Ethereum sidechain (gasless minting on OpenSea)
- **Base:** Coinbase L2 (emerging NFT activity)

Challenges:

- Fragmented liquidity across chains
- Bridge risks (cross-chain NFT transfers)
- Ecosystem lock-in (wallets, tools, communities)

Seaport (2022): Open-source NFT marketplace protocol

Key Features:

- **Permissionless:** Anyone can build marketplace frontends
- **Advanced order types:** Criteria-based, partial fills, bundles
- **Gas optimization:** Efficient settlement mechanisms
- **No protocol fees:** Frontends set their own fees

Strategic Intent:

- Commoditize marketplace infrastructure
- Compete on UX and features (not protocol lock-in)

Adoption: Coinbase NFT, GameStop NFT use Seaport protocol

- 1 NFT marketplaces compete on fees, features, and trader incentives
- 2 Blur dominates (55%+ volume) via zero fees and pro trader tools
- 3 Marketplace fees dropped to 0-2.5%; creator royalties now mostly optional
- 4 Wash trading inflates volume for rewards (detection via wallet analysis)
- 5 NFT market down 90%+ from peak; focus shifting to utility NFTs
- 6 Aggregators commoditize marketplaces, forcing fee competition

- 1 Should NFT marketplaces enforce creator royalties, or should they be optional?
- 2 How can platforms balance trader incentives (low fees) with sustainability?
- 3 What measures can effectively prevent wash trading without harming legitimate users?
- 4 Will aggregators eventually commoditize all NFT marketplaces?
- 5 How does the shift to zero fees impact the long-term viability of NFT marketplaces?

L24: Lab – OpenSea Analysis

Hands-on activities:

- Browse and analyze NFT collections on OpenSea
- Extract and decode metadata from IPFS
- Track floor price movements and sales volume
- Use rarity tools to evaluate NFT traits
- Develop investment evaluation framework

Preparation: Create MetaMask wallet, explore OpenSea collections