

## 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):

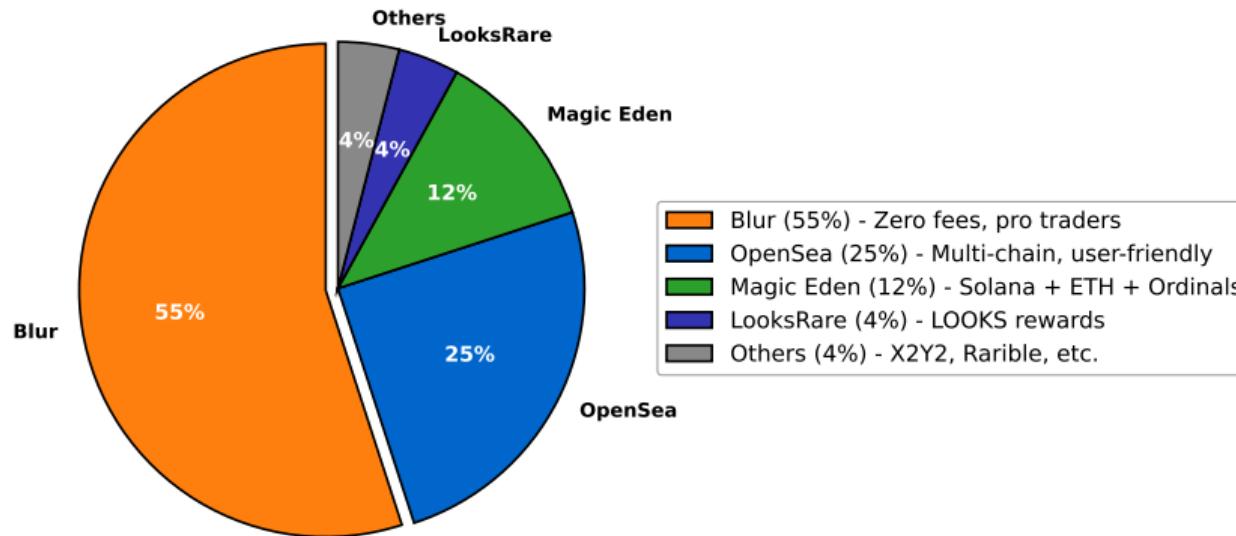
- ① **OpenSea:** Largest NFT marketplace, multi-chain support
- ② **Blur:** Pro trader-focused, zero marketplace fees
- ③ **Magic Eden:** Solana-native, expanding to Ethereum
- ④ **Rarible:** Community-governed, aggregator model

## Market Consolidation:

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

# Marketplace Market Share (2024)

## 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

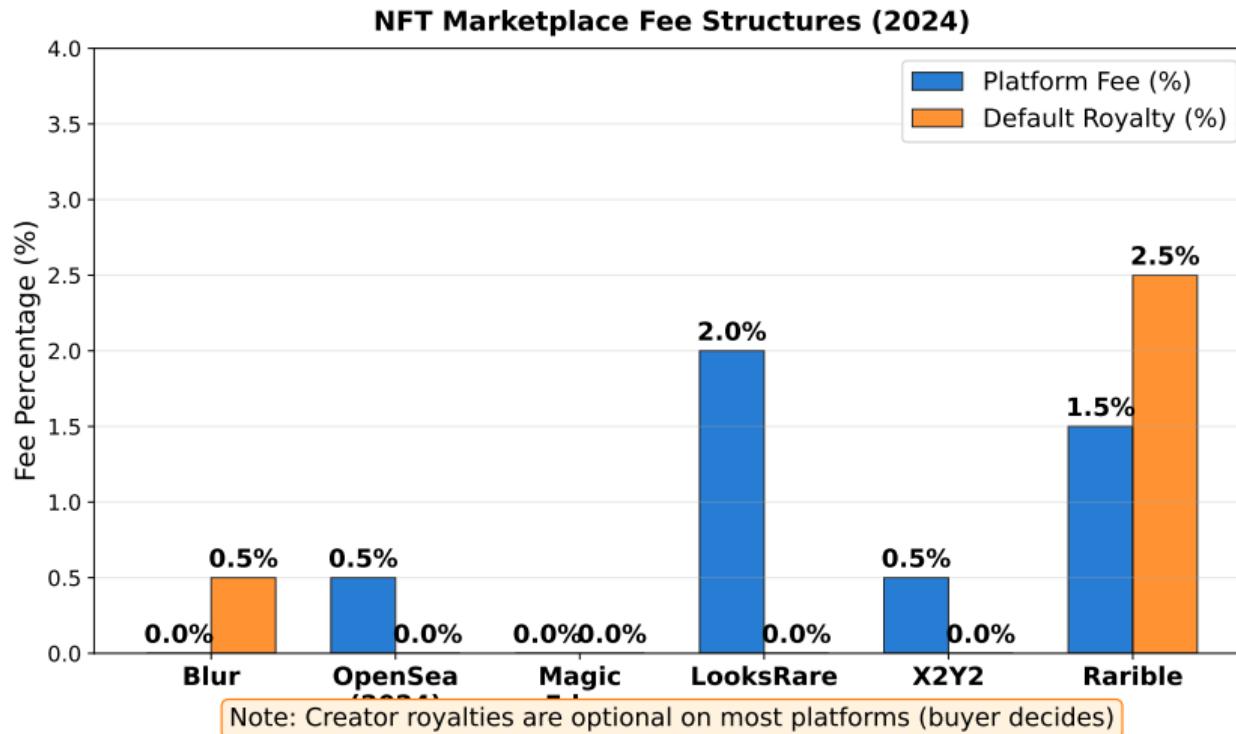
## OpenSea Seaport Protocol:

- **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

# Marketplace Fee Comparison



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

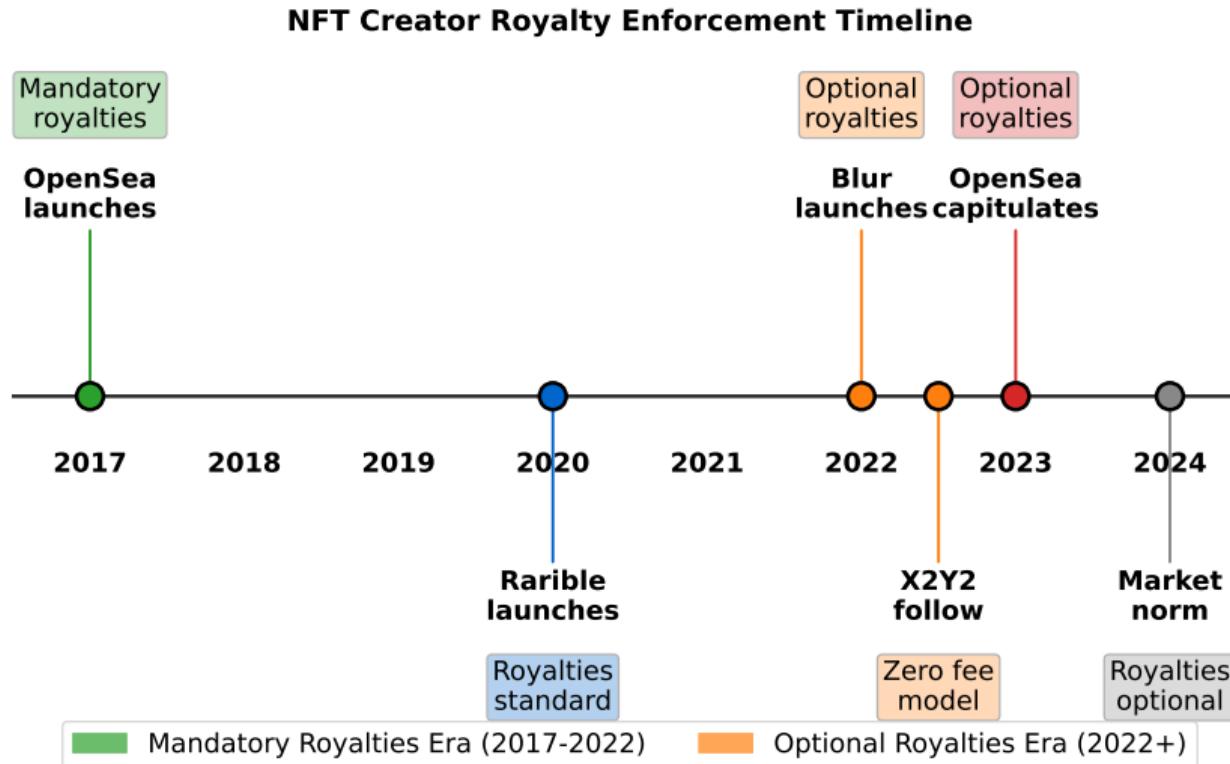
**Shift to Optional Royalties (2022+):**

- 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

# 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: Artificial Volume

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

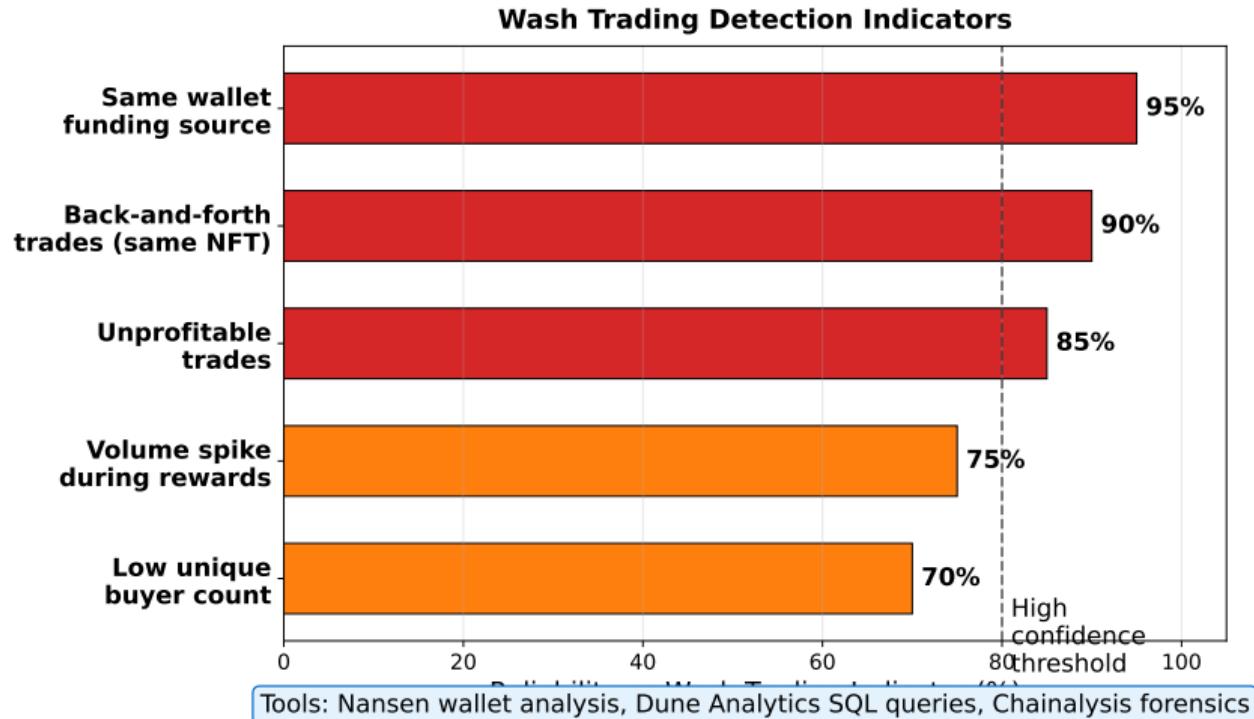
**Motivation:**

- 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)

# Wash Trading Detection



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 (<10% 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 Dynamics

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

**Why Floor Price Matters:**

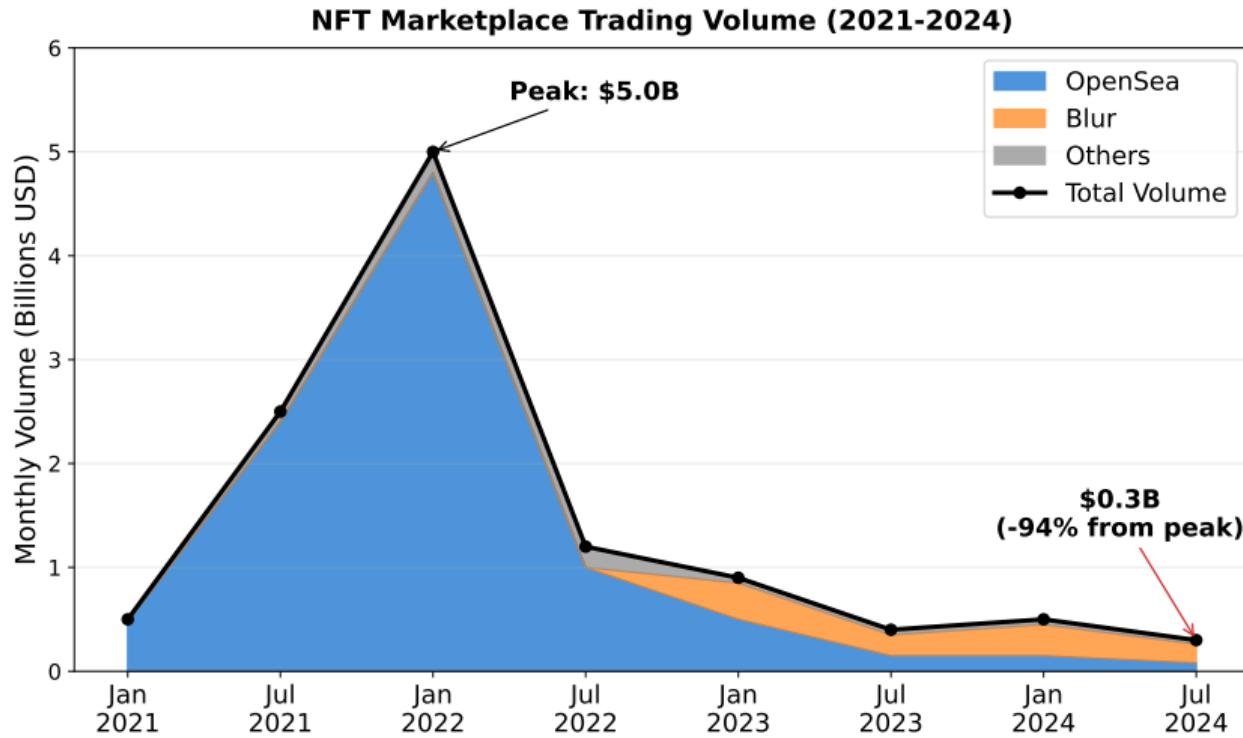
- Proxy for collection value and market sentiment
- Entry point for new buyers (“buying the floor”)
- Psychological support level (panic selling if broken)

**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

# NFT Trading Volume Trends



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

## Key Takeaways

- 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

## Discussion Questions

- 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