

Ocean Protocol: Tools for the Web3 Data Economy

On Earning by Staking Data, Selling Data, and Building Markets

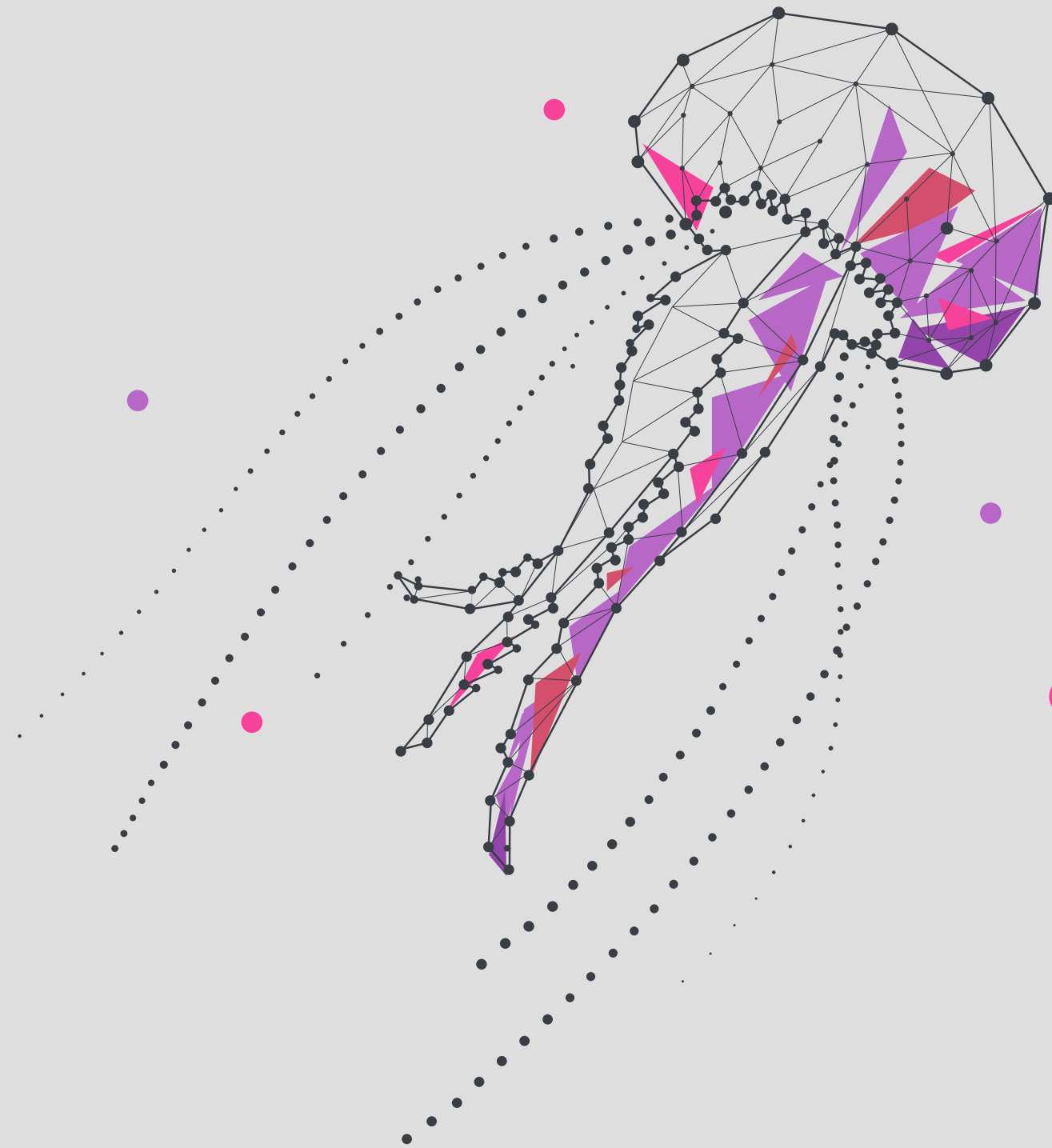


Outline

Three ways to earn in Ocean:

1. **Sell data** in Ocean Market app
2. **Stake on data** in Ocean Market app. You get a % of tx fees of data that you stake on. And OCEAN rewards, when datafarming kicks in.
3. **Run your own market** by forking Ocean Market, or with Ocean libraries. You get a % of all marketplace tx fees.





1. Earn by Selling Data

Earn by Selling Data

Types of data that you might sell:

- Your proprietary data
- Others' proprietary data that you've acquired the rights to
- Open data that you've added value to

Let's explore each...



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1.1 Earn by Selling Your Proprietary Data

Here, you create or dig up your own datasets, then post them for sale on Ocean Market.

Personal data

your location data, browser history, or data exported from Facebook or 23andme.

Business data

that your company (or NGO) has accumulated over time, which might be of value yet is sitting latent.

NGO data, city data, government data

improve revenue in your organization, to benefit your community / citizens

If you're worried about privacy or control of your data, use Ocean Compute-to-Data.



1.2 Earn by Selling Others' Proprietary Data

Two variants:

- 1 You as data broker.** Find a data rightsholder, then act on their behalf to sell their data in Ocean Market.
- 2 Value-add / remix.** Create a “remix rights” contract with the data rightsholder, where you would add value to the data in some way, sell this value-added data, and give them a cut.

If the rightsholder is worried about privacy or control of your data, use Ocean Compute-to-Data.

1.3 Earn by Selling Value-added Open Data

People who want to use open / free datasets, can simply download them directly from a browser; there's no need for Ocean. However...

There is a way for you to earn from open / free datasets:

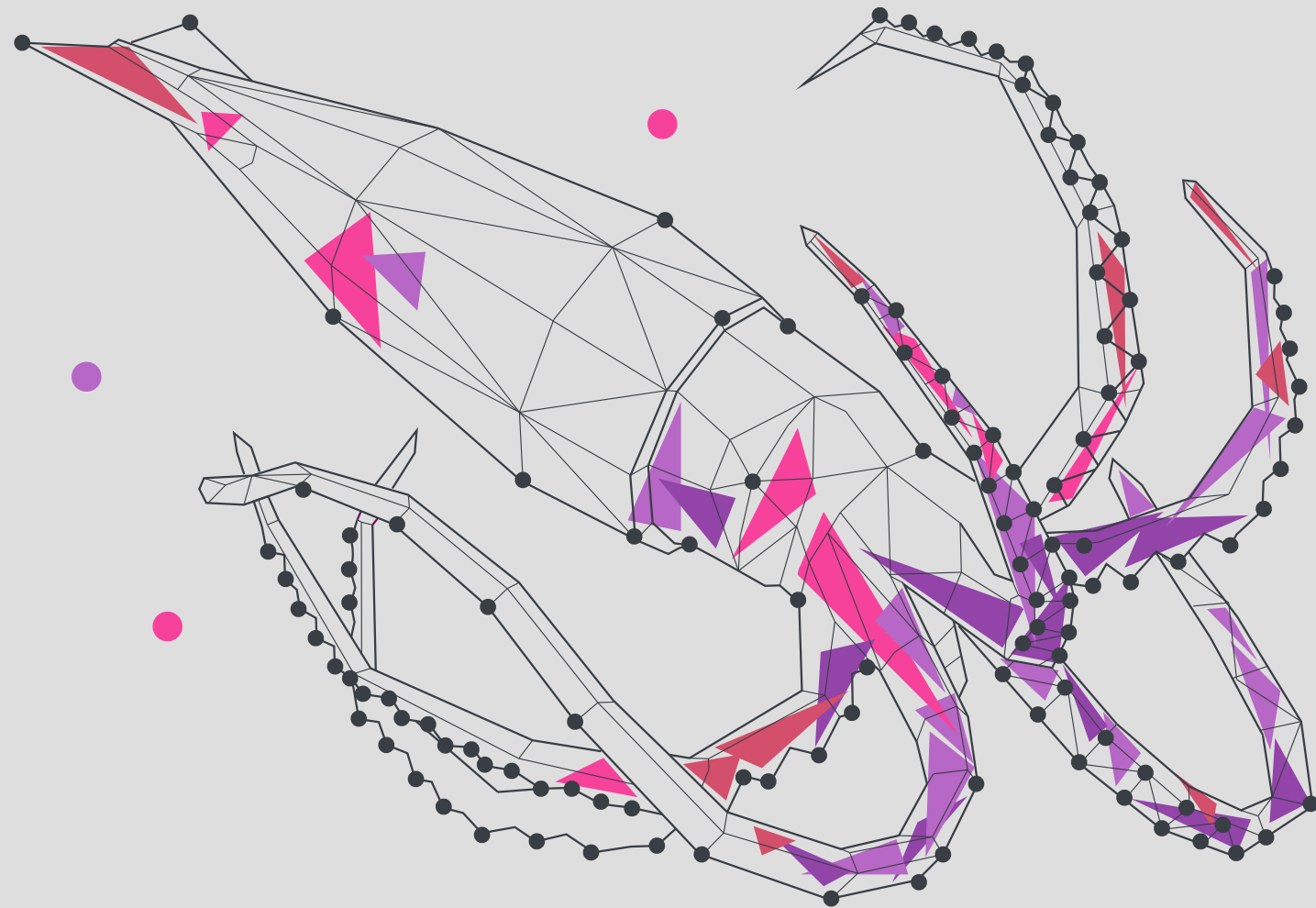
Add value to open datasets, then sell the value-added datasets. 🏆 🏆

Here are some ways that you can add value:

- **Tag or label data.** For example, transcribing audio, or assigning bird species to bird photos. This helps for AI “supervised learning”.
- **Clean the data** to make it easier to consume. For example, scrape public websites and put the information into a format that's easy to for AI & analytics tools to consume.

If you're a data scientist, you have more opportunities yet, including:

- **Feature-engineer data to make it more tractable for others to model on.**
- **Sell synthetic data.** Get access to private data, use Compute-to-Data to calculate the synthetic data, and sell it.
- **Sell your trained AI models.**



2. Earn by Staking

Earn by Staking

OCEAN staking is the act of adding liquidity to an OCEAN-datatoken AMM pool. By staking, you become a liquidity provider (LP).

In staking, you earn a cut of the transaction fees.

You will earn additional rewards from Ocean Data Farming program, when it launches.

Staking incurs the risk of impermanent loss - when the pool's ratio of OCEAN to datatokens changes compared to when you initially staked. A special case is a "rug pull": when a datatoken publisher mints a lot more datatokens into a pool, directing more of the pool's OCEAN to the publisher.

To be profitable, (transaction fees + farming rewards) must be $>$ (impermanent loss).



Staking Rewards from Transaction Fees

% Fee

The creator of the OCEAN-datatoken pool sets the transaction fee going to stakers.

- The fee is a percentage of sales volume.
- The higher the sales volume, the more you earn.
- The default fee is 0.1%, but it could be 1% or 5% or more.

Earning

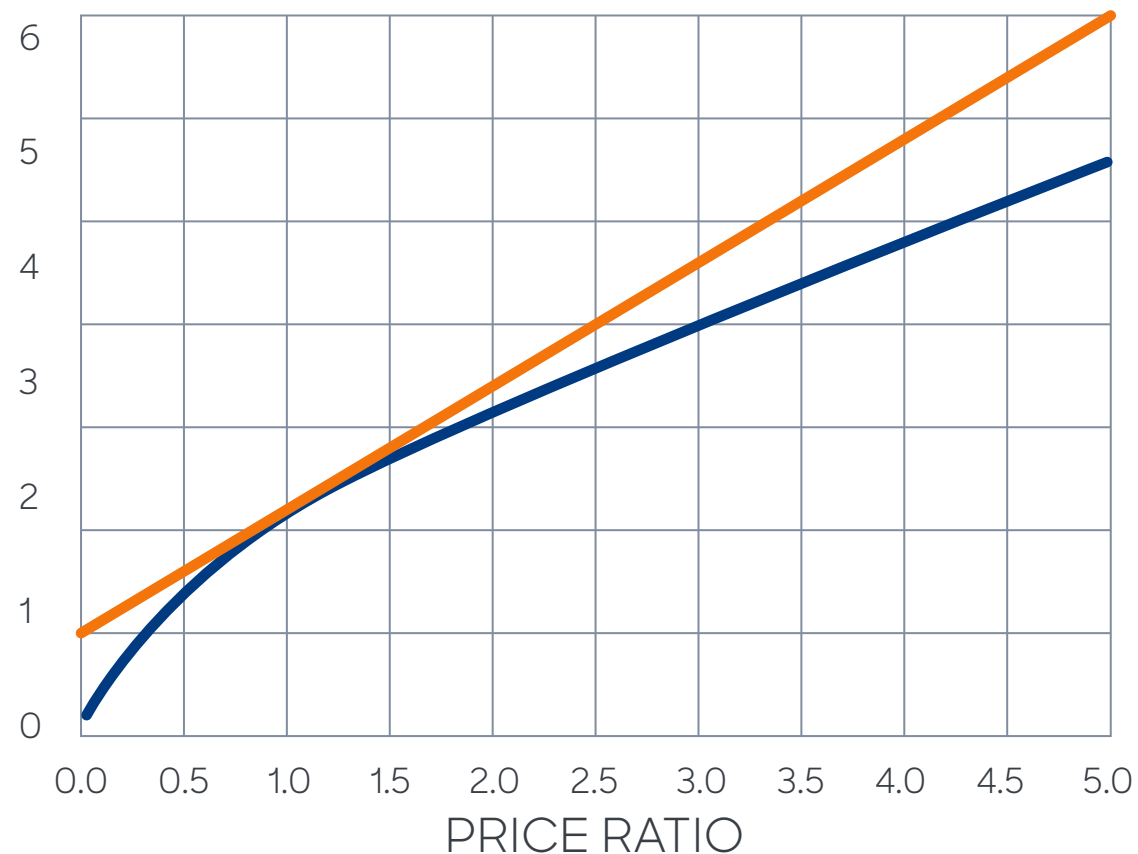
- Stakers get paid proportional to how much liquidity they have provided, compared to other stakers.
- You may want to stake on data assets with high sales volume, especially “undiscovered gems” with little stake so far by others (to get a greater cut).



Risk: Impermanent Loss

Impermanent Loss (IL) occurs whenever ratio of (# OCEAN token) : (# datatokens) in pool diverges, compared to when you initially staked. Special case: publisher mints many more datatokens into pool (“rug pull”).

IL becomes permanent when you withdraw.



orange - value of your holdings if you held OCEAN and datatoken outside of AMM

blue - value of your holdings in the OCEAN-datatoken AMM.

(All else being equal, and with zero fees and rewards.)

(Image: University of Orleans)

On Being Profitable

profit = (transaction fees) + (farming rewards) - (impermanant loss)

To increase transaction fees.

- Choose OCEAN-datatoken pools to maximize (# sales transactions) * (% fee in pool).
So, get more sales, or increase % fee.

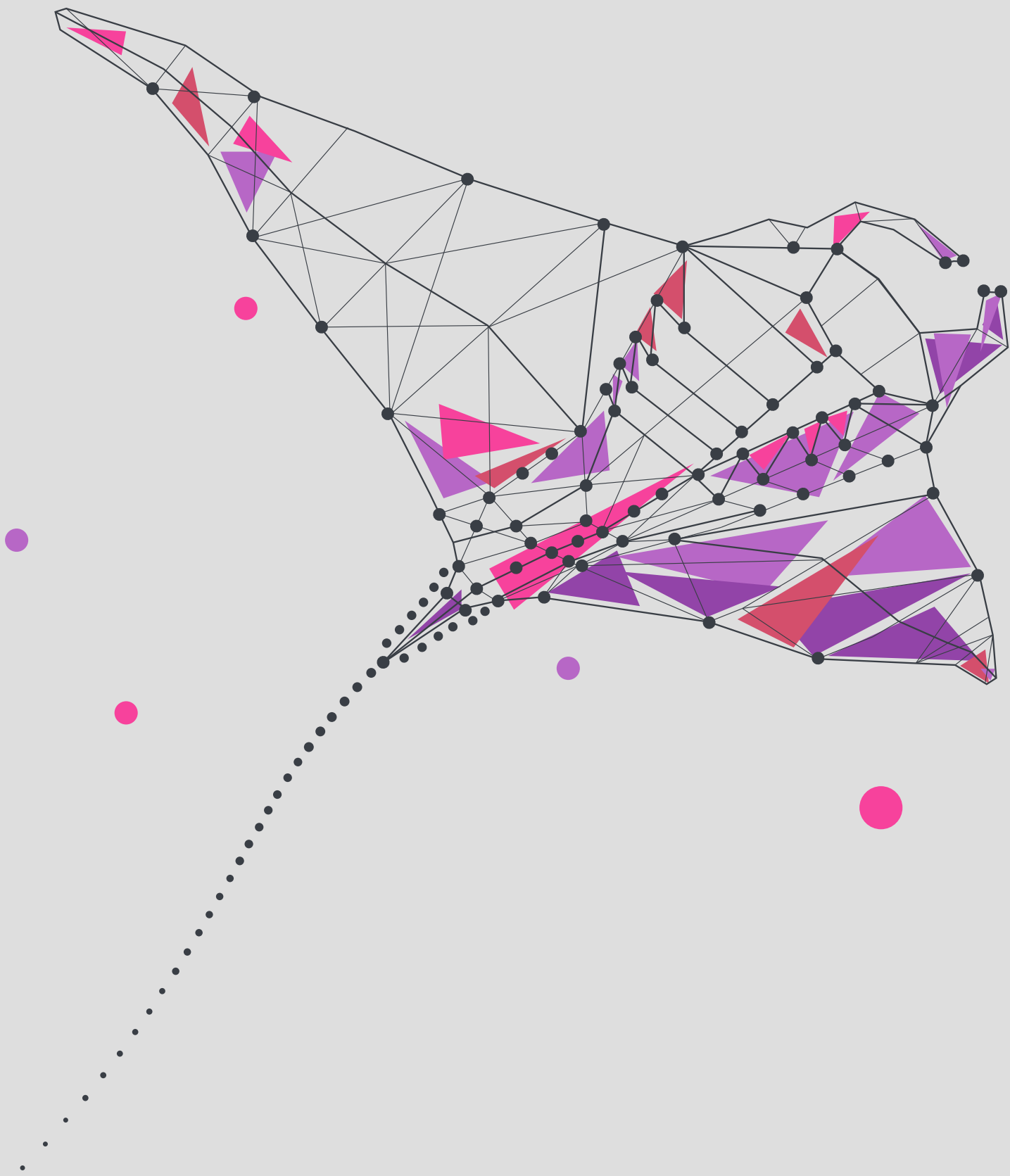
To reduce impermanant loss (IL):

- Understand it - educated yourself as needed.
- Avoid pools with a high chance of rug pull. Best: pools with all datatokens already in the pool.
Good: pools where publisher has a reputation to maintain
- Monitor the price ratio, then pull out if the ratio changes by >10% or so. The exact number depends on the tradeoff to earning potential by transaction fees.
- Better tech over time. Monitoring tools will help. Balancer etc are working on IL-reducing mechanisms.

There's a risk-reward tradeoff. For those with lower risk tolerance, other earning approaches may be a better fit.



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3. Earn by Running Your Own Marketplace

Overview

If you run your own market, you get a % of all marketplace tx fees. You're the "house".

How:

- Fork Ocean Market, or
- Build up with Ocean libraries (ocean.js, React hooks)



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Why an Ocean-powered data market has earning potential

Data is a huge industry.

Ocean tools give you an opportunity in this industry, by running a data market with unique selling propositions:

- **Buy & sell private data while preserving privacy** - using Ocean Compute-to-Data.
- **Economic exclusivity** - using compute-to-data gives sellers the option to make data exclusive (in an economic sense) which can give data a pricing premium.
- **Don't need login** - just connect your Web3 wallet. In & out in 2 minutes. Feels like a DEX, vs a CEX.
- **Non-custodial** - your customer's don't need to trust you. Hackers have nothing to hack.
- **Uptime / liveness** - Ethereum backend won't go down (practically speaking)
- **Censorship-resistant, with flexibility** - by default, everyone can transact your market on the same terms, regardless of their personal identifying characteristics. Or, to meet data regulations or KYC, you can whitelist.
- **Provenance** - sellers and buyers benefit from the auditability of purchase transactions.
- **Interoperability** - Data assets being bought and sold are ERC20 tokens, so plays well broader Eth ecosystem

The optional use of Balancer AMM pools enable these additional characteristics:

- **IDO Launch Platform** - be the primary market for new data asset launches (Initial Data Offerings)
- **Automated price discovery** - the pool holds OCEAN and datatoken as liquidity. DT price goes up as DTs are sold.
- **Curation (= Stake)** - authentic signals for quality of a dataset. Put another way, downvotes spam.
- **Transaction fees for stakers** - incentivizes people to stake (=better curation, lower slippage)
- **Referrals** - people are incentivized to refer to pools that they get tx fees from



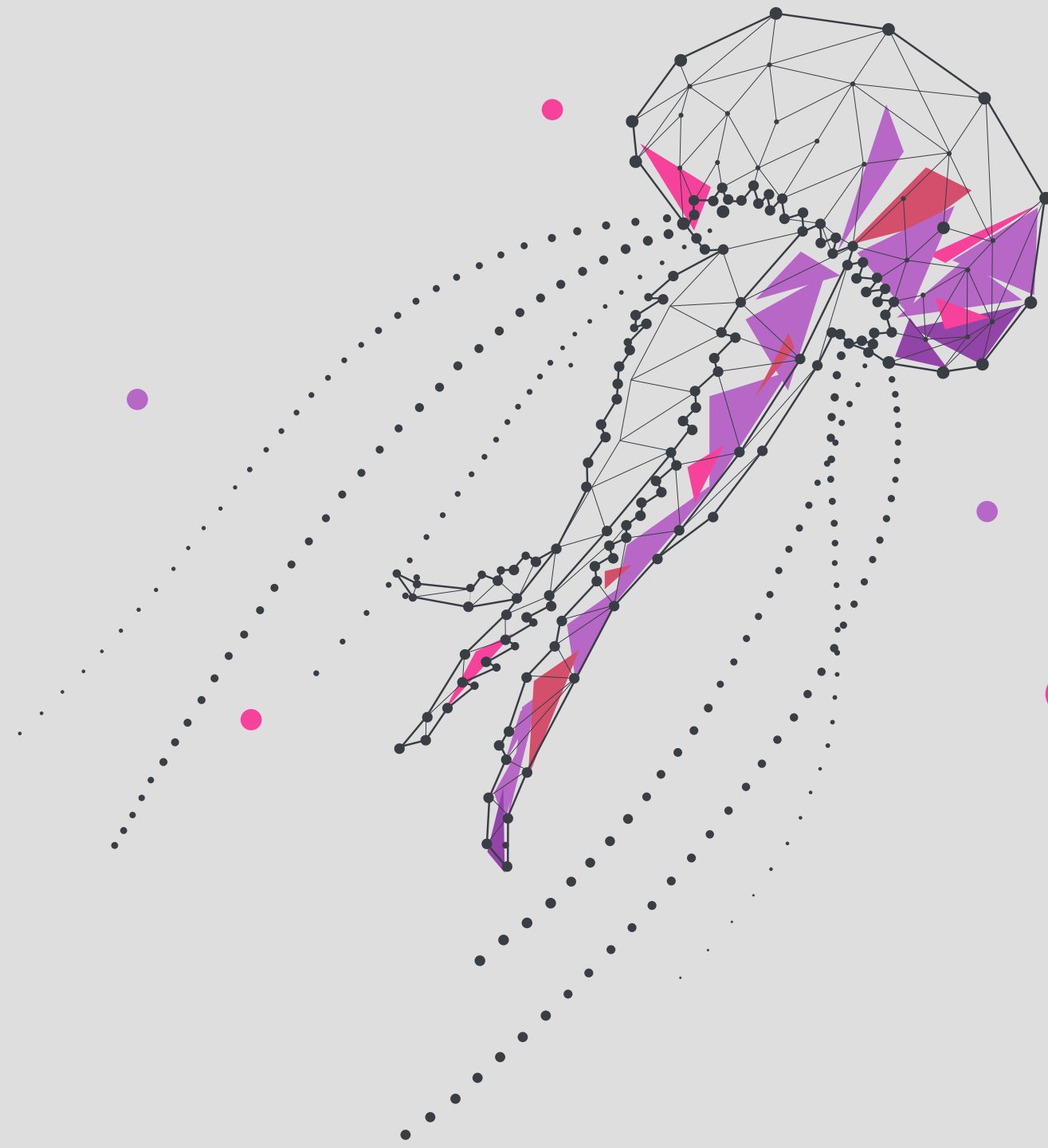
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Ways to Differentiate

Ocean Market is general, on purpose. We envision 1000s of Ocean-powered data marketplaces. Here are a few dimensions for differentiation.

- **Focus on a given vertical.** E.g. dexFreight (logistics), Daimler (automotive). Others: health, ads, and DeFi.
- **Focus on just IDOs.** Be a great go-to platform for launching of large-cap data assets as Initial Data Offerings
- **Focus on just private data,** leveraging compute-to-data. Have features for curation of compute algorithms.
- **Better integration into AI workflows.** Make it super easy for data scientists to monetize on specific AI problems.
- **Novel pricing mechanism.** E.g. use royalties, auctions, or income share agreements (ref Bowie Bonds)
- **Decentralized dispute resolution** using Aragon Court or Kleros.
- **Surge pricing.** Higher tx fees when more demand for liquidity. Via Balancer Configurable Rights Pool (BCRP).
- **Different Initial Data Offerings (IDOs).** E.g. rather than a fixed 90/10 weight pool, shift over time. Via BCRP.
- **Different DEXes.** Ocean Market currently uses a tweak of Balancer AMMs for lower gas costs. 3rd party marketplaces may use the original Balancer deployment, Uniswap, Bancor, Kyber, or other.





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