All of this is a working doc, and all ideas are open for exploration. Happy to brainstorm together and hear your feedback! Feel free to leave comments or DM me directly :)

Introduction
In crypto, the two strongest benefits are **ownership** and **composability.** After DeFi and Gaming, the next natural progression would be towards bringing real-world businesses and assets onchain. Given that eCommerce is digital, built by real businesses and is an aggressively growing industry, it's a great space to find <u>real problems which web3 can solve</u>.

Web3 Shopper Profile [Phase 1]

Problem Statement: eCommerce businesses want to convert ideal customers, but have no idea how to recognize them.

Converting ideal customers is important, because it ensures customer satisfaction, quality referrals and higher chances of repeat business. Businesses don't want to spam discounts to everyone, but are willing to fork out extra to convert the ideal customer to their cause.

As a merchant, what if you could target customers not just with token-gating, but by treating them specially based on their profile?
Examples:
- *A fashion brand selling polo tees may offer special discounts to golfers*
- *An indie coffee store may offer an exclusive time-sensitive subscription package for all customers who recently bought a Nespresso machine.*

As a user, what if you could be treated like the first-class shopper you are? What if your shopping profile helped you get access to special deals and discounts as you shop?
- *Link to Mcdonalds Grimace NFT*

This is impossible in web2 because you can't access Nike's customer database, know who bought a Starbucks last week, or what your current customer's shopping profile is like.

You can't do **multiplayer eCommerce** without blockchain.

Instead of token-gating which brings additional friction and feels exclusive, we want a **shopper's profile to empower and boost their shopping experience.**

The idea is, we can include all sorts of special cross-promotions, personalized deals and ensure **high customer conversion rate** by allowing merchants to access a customer's profile whenever they connect their wallet.
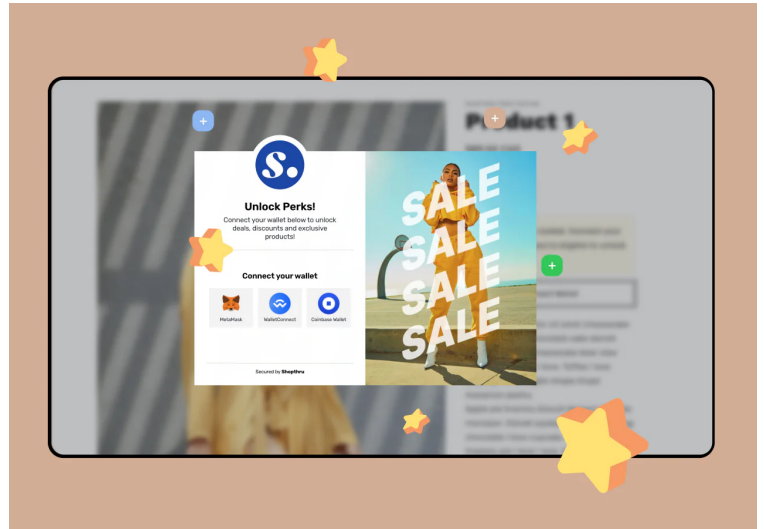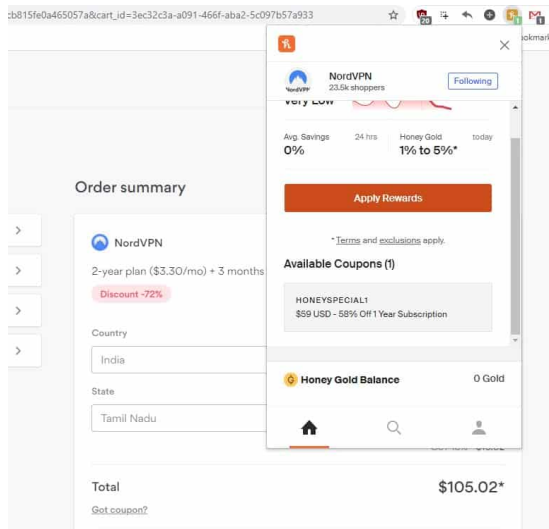
Possible Implementation
Everything is open to discussion, we'll work according to team strengths and skills.

In the implementation, we would need 2 consumer-facing apps. One for the customer, one for the merchant to manage the process. If we can build it into a **Shopify plugin**, it would immediately demonstrate the practicality of the solution, and also be easier since Shopify already has the entire eCommerce store infrastructure set up.

<u>Customer-facing flow</u>
1. Customer goes to store and clicks a "Connect Wallet" button
2. Upon Signing / verification, show a pop-up or expandable window highlighting deals unlocked

Similar to Honey (automatic discounts) and Shopthru (token-gating), but instead using a transaction-unlocking model.

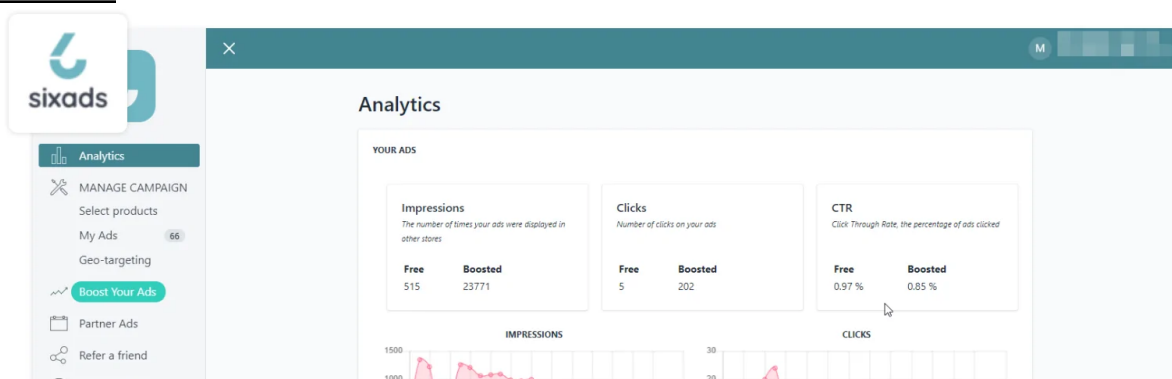3. Possibly connect to Lens for further profile analysis

Tech stack needed: Frontend UI/UX, JS, Liquid (for Shopify)

<u>Merchant-facing flow</u>
- Be able to generate discounts / deals
- White-list the smart contract / NFT / tokens that will allow a customer to unlock a deal
    - As a possible demo, we can use the NFT vouchers created by Grab (*Southeast Asian fintech juggernaut valued at 13B*) for an initiative they recently did with F1 Singapore
- Have a dashboard to monitor "special" customers, and track deals unlocked
- Connect it to the Shopify plugin API

Examples of what it could look like:
<u>Dashboard</u>

Editing a specific deal

Tech stack needed: web3 library, simple backend server to serve and receive requests, Liquid frontend to manage plugin dashboard

[More elaboration & product specs as we brainstorm]

Now that we have a proof-of-concept, if we have time, we can try building Part 2. The ideal case is when all orders / stores / eCommerce is fully on-chain. However, that may not happen unless we make it happen.

Here's one way to do it.

ZK Loyalty System Onboarding [Phase 2]

We let users upload receipts from white-labeled businesses. Let's say Mcdonalds. When they upload Mcdonald receipts, we can attest this to their wallet, and give them a NFT / points to reflect that on-chain. There would need to be a way to verify receipts [out of project scope], and we can use ZK-proofs to ensure verification availability.

Specific use cases would be toy stores unlocking special deals/discounts for customers who buy Happy Meals often :)

The big idea here is that, we are essentially minting points to users for their web2 activities, slowly onboarding web2 transactions onchain. The difference is that instead of being stored in a centralized server, once you've uploaded your receipts once, it can be re-used by multiple other eCommerce stores using our web3 plugin. Data remains confidential with the use of ZK.

This will also allow us to enter for the ZK bounties.

Possible Bounties

Need to explore together in greater detail
- Mask (for Shopper Profile?)
- Polygon Account Abstraction during merchant backend configuration process?
- Built on top of Hyperlane / Mantle / zkEVM (data privacy)?
- Apecoin as payment method / cashback ?
- Sismo to attest to web2 purchase receipts?
- Build backend using Tableland?
- Cometh for customers (new to web3)? Although it wouldn't make much sense since they dont have txn history to reference. But good onboarding tool.

About The Team (so far it's only me)
- Phang Jun Yu https://www.linkedin.com/in/phangjunyu/

Background: Product / dev. Graduated with a Com Science degree, won a few hackathons in university, and started the blockchain club in NTU. Went on to build a product that raised 500K on Kickstarter and transitioned it into eCommerce after. That's why I have domain expertise in eCommerce, Shopify and want to explore what we can build at the intersection of web3 and eCommerce!

Role: **Product (scope problem, prioritize features, presentation)**, can help out with some backend development (Python, Javascript, basic Solidity)

If you like what you've read, feel free to reach out at @gentleuniverse on Discord or @phangjunyu on Telegram. Happy to brainstorm or discuss. If you want to work together, tell me what you like about the proposal, and how you can contribute!