**Final Project: Itchy Sweater**

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**Abstract:**

The best products come from simple solutions to common problems. For most individuals there has been a time in their life when they have received a gift which they did not want or ask for but have no choice but to accept adhering to social etiquette and smile so as not to hurt the gifter’s feelings. For some, this is an itchy old sweater from Grandma. While they know her heart was in the right place and she thought you would love it, you get stressed by the fact that you now must wear this itchy sweater the next time grandma is over and act as though you love it. For others, this gift may be a gift card to a store which you would not ever even think to shop at. For example, a Barnes and Noble gift card for a teenager who wants nothing to do with reading books. While the current gift card system is antiquated, our modern solution, Itchy Sweater provides a revolutionary solution to this existing problem leveraging blockchain technology.

**Problem Itchy Sweater Solves**

*Facts:*

In today's landscape gift cards are a favorite during the holiday gift giving season. However, there are a few problems with gift cards. The first issue is that they can be lost, damaged, or stolen. According to Bankrate, 51% of U.S. adults have unused gift cards, and the average person is leaving $116 on the table, which adds up to around 15.3B nationwide. In addition, gift cards have an expiration date, meaning that they will expire if they go unused and the person who owns the card may lose out on their chance to use it if they are not diligent in monitoring expiration dates. In addition, after 12 months, companies can charge fees for inactivity, dormancy or service charges.

*Personal Data:*

Another issue for many store loyalty cards is that they require the consumer to give up their privacy by requiring the consumer to provide personal information such as name, address, phone number, etc. If someone wishes to leverage a store rewards or card program, they will need to sacrifice their privacy and personal data, losing control of who that data gets sent to or how secure the protection of that data is. Blockchain technology solves this need by anonymizing the process and allowing the consumer to control who has access to their personal data.

*Transferable Value:*

The last major issue is that today there is not much use for a gift card should the gift holder not want to procure any services for the store. On Itchysweater, the consumer has the ability to use itchy coins for a multitude of stores, which will allow flexibility and for everyone to get the most value out of their gift. An initial gift can be provided either in independent itchy coins or to a specific store, however, the consumer can exchange points to another store which they prefer and purchase from the stores site or in person using our application and a unique QR code.

**Solution:**

*Application*

Our solution is to create a blockchain-based loyalty network. This is the underpinning of a web-based application that allows businesses and participants easy access to their desired information. Businesses can consolidate and share their customer data amongst other businesses profiting off of valuable customer data to better, and accurately cater to potential customers. Participants have seamless access to value-based tokens exchanging unwanted gift cards to items they actually want by using the web-based application.

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The general idea of how a blockchain-based loyalty network would ‘look’ comes from the benefits described above. But at this point, only real-time interoperability seems to be the biggest achievement; companies – to some extent – lose control over proprietary data, which they have in closed-loop solutions. So another question here is whether the ecosystem is working on a public or private blockchain. And in which case does the implementation of distributed ledger technology carry a business value?

This would ultimately have to be built on a pseudo-private blockchain (invite-only) as this scales up. Companies don’t want to lose the most valuable asset: data on individuals and their spending habits. They presumably want the ability to censor and unwind transactions should they detect any bad behavior. So the key defining features of public blockchains (including censorship-resistance) are, therefore, not useful here.

Potential technology to make: starting and running a loyalty points system cheaper, easier, more secure, and better visibility over points issuance and redemption

interoperability with other loyalty programs and the ability to convert points between programs has been explored pre-blockchain. In other words, blockchain does not solve the problem of centralization itself – companies can reach it by ‘manual’ collaboration as they do now.

APIs are the key here (a system on a blockchain without API hooks is just as un-interoperable as a non-blockchain system without API hooks)

important to assess the level of control companies want to have over customer data and activities as well as security/privacy issues that always arise with every additional participant of the network.

**Governance:**

Options for building and maintaining the blockchain platform would include a joint venture with network providers such as banks or payment card processors.

Token governance will be maintained via itchy token delegator and validator nodes which will be established by the itchy community. The opportunity to set up a delegator and validator community.

Voting rights will be distributed as follow; 50% voting rights will be distributed to validator and delegator nodes, these nodes will help to hold our network and ensure a stable taked supply of itchy tokens remains. The remaining 50% will be distributed to Itchy holders via the app, holders will be able to vote via the app and or setup proxy for voting.

**Technical/Financial Architecture:**

The Itchy micro-ecosystem is built upon the atom(cosmos) centralized network, which focuses on the ability to run nodes on different parallel blockchains. The `cosmos hub` which operates as the epicenter of the cosmos network, allows the `Itch Token` sub network to operate within a zone attaching itself to the network host.

Much like other blockchain based defi(decentralized finance) applications, the `Itchy App` will be fully functional and interoperable via the Cosmos Hub. We will run on web 3.0 technology and house all our data on the blockchain to be fully transparent with the holder.

All payment transactions including but not limited to; swapping gift cards for tokens, purchasing `itchy tokens` and receiving `itchy tokens` staking rewards, will all be performed via the SOL(Solana) network. This network is built to assist in all blockchain based workflows. SOL is the fastest layer one solution and allows for instant transfers after 31 nearly instant block confirmation, handling 50,000 transactions per second.

This will create a challenge as our accounts will be fully transparent to users. To solve this problem, we will allow our Itchy Tokens to be staked at a variable interest rate which will incentivize customers to leave tokens unspent and stake them via our cosmos staking protocol. These tokens unspent will allow us to support our token infrastructure.

On purchase or conversion of a giftcard to `Itchy Tokens`, the amount of USD remaining after all transaction fees(Itchy Transaction fee- nominal percentage, Gwie fee per the polygon network) will be converted into USDT and a duplicate amount of itchy tokens will be placed in the Itchy App Wallet. The Itchy app wallet will be built as an IOS/Android app as well as a chromium plugin that is available via Google Chrome · Microsoft Edge · Opera · Vivaldi · Brave · Blisk · Colibri.

Our goal is to reinvest net proceeds from fees and staked itchy tokens back into the cosmos ecosystem. We will not only stake atom cosmos in delegation nodes but we will also stake cosmos into profitable liquidity pools, decided upon via the staked token holders.

**Roadmap:**

**Phase 1: March - August 2022**

**During this phase we have worked to create our Litepaper, build out our vision and have crafted our Marketing/Customer Hub with read-only access.**

**Phase 2: September - December 2022**

**During this phase we will allow users to create an Itchy sweater account and purchase itchy tokens via solana by connecting a fantom wallet. We will not yet have a wallet plugin built, so we will not yet distribute Itchy tokens but take proceeds from the sale and hold them for operational use. This will essentially be our kickstarter event. All users that purchase Itchy tokens for staking will receive a 10% reward in Itchy tokens when tokens are distributed. We are limiting this to 10,000 users at a $1000 max. User/Staking ratio will be variable and can fluctuate, with a goal of raising 5 million USD.**

**Phase 3: January - May 2023**

**In this phase we will build and release our Itchy app/including our wallet. This wallet will hold Itchy tokens and allow them to be spent at online retailers as well as via a scannable QR code. We are still working on contract architecture and will update this roadmap item when we have decided on a smart contract direction.**

**Phase 4: June - October 2023**

**Once we have built out all prior phases and worked to acquire business partnerships with known retailers, we will airdrop all staked tokens/rewards as well as open up our app/wallet for public use. During this phase we will offer incentives with our partner brands and new staking opportunities within our token ecosytem.**

**\*More Phases to be determined at a later date**