Hybrid User Research

[Ledger Bitcoin Staking] tBTC v2 - Explorative + Iterative Study

October 2023

Design Researcher: **Sasha Tanase**
Product Designer: **Sorin Codrut**

Agenda

- Methodology
- Usability Tests - Methodology
- Findings - Page by Page
- Appendix
    - Interview Script
    - Figma Prototype **here**

Design Research

Design Research helps teams build the right thing, the right way.

Explorative Design
helps building the *right thing*.

Iterative Design
helps building the *thing right*.

Study Goals

- **Needs** that Bitcoin user have and **cannot be achieved today.**
- Learn more about the **Bitcoin holders** who are **interested in DeFi:** their **behaviours**, their **unmet needs**, their **interests**, things that sparkle their attention.
- Learn what are the **benchmarks for a Bitcoin DeFi product**.
- Learn how important is the **yield in the decision of moving their assets from their cold storage.**
- **Trust benchmarks and tokens** in the decision making process.
- Learn about the way Bitcoin owners interact with the Ledger Live application.

Research Methods and Users

WHAT WE DID

- We interviewed **10 users**
- Qualified users were individuals who **hold Bitcoin and use the Ledger Live application.**
- **60 minutes** video calls
- Figma Clickable Prototype used for the test
    - Deposit Flow

Research Methods and Users

RESEARCH QUESTIONS

- How do users perceive a trustworthy brand? What are their main trust signals when deciding to use a protocol or a web3 product?
- Given the possible fear of hacks and smart contract vulnerabilities are the Bitcoin users drawn by yield that much in order to interact with DeFi protocols? protocol or a web3 product?
- What drives Bitcoin users to a DeFi product? Is there a desire to earn yield or other factors?
- Do users understand the underlying processes of our Staking dApp, such as the bridging of BTC to Ethereum? Could this be a blocker in user adoption or indent their trust?
- Is the Discovery category in Ledger Live a good touchpoint? (How often do Ledger users interact with dApps directly from Ledger Live, and how often do they explore the Discover category?)
- What are the benchmarks for a product that attracts Bitcoin people?
- What would users want to do with their Bitcoin that they cannot do today?

Research Methods and Users

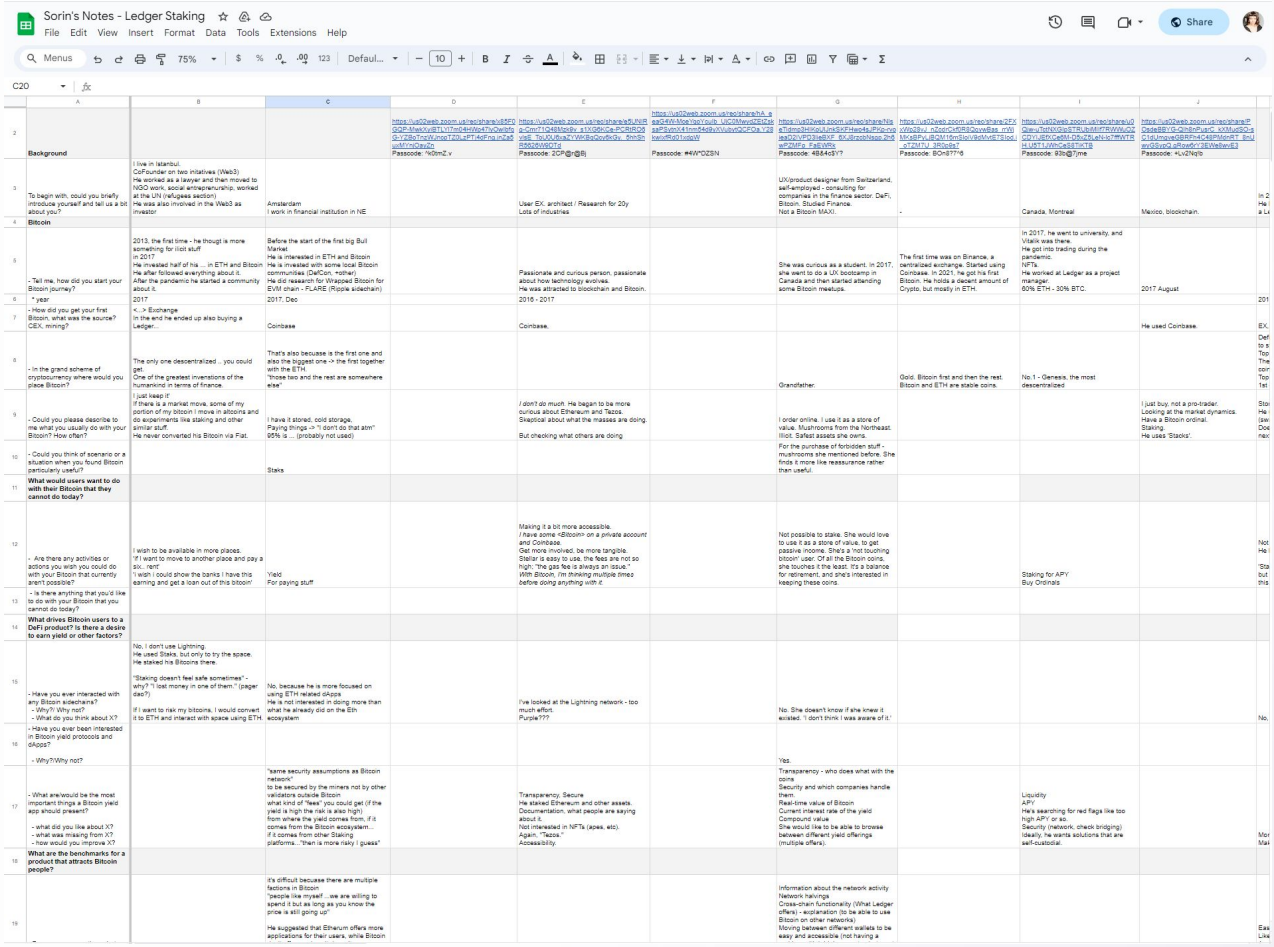
WHAT WE TESTED

Prototype Walkthrough

This exercise involved thinking out loud technique in which users had to go through deposit flow and describe what they see and what they think. We tested out the deposit flow and tested the a design route of simplifying the design and reducing the information noise in order to keep the user focused on the main action. Secondarily we tested out how well a progressive disclosure of information works. We used a clickable prototype made in Figma

- **Deposit flow**

Data Capture and Analysis



Deep Learnings

Deep Learnings

BITCOIN HOLDERS BEHAVIOUR

Bitcoin holders' perception of Bitcoin as a token

"It's THE Grandfather" (participant 4)

"Bitcoin is the engine, it drives everything" (participant 2)

"Is the GOLD standard" (participant 2)

Deep Learnings

BITCOIN HOLDERS BEHAVIOUR

Bitcoin holders' perception of Bitcoin as a token

Most of our participants own Bitcoin and other tokens, and all of them got Bitcoin using centralized exchanges, however none of them keep their funds in CEX wallets, they only use the centralized exchanges for on ramping and then they send their funds to their cold storages.

Most of them regard Bitcoin as **a store of value,** and are very attached to their Bitcoin funds. Some of them refer to Bitcoin as "pension" or "grey pound", however they all regard it as a source of funds for their future that gives them a sense of security and stability. This is why they are extremely attached to their funds and do not want to take a lot of risky decisions concerning their Bitcoin.

INSIGHT

This translates in an array of derisking behaviours, brings a lot of caution in their decision to interact with protocols that involve their Bitcoin funds, and surfaces a very low appetite for risk.

Deep Learnings

BITCOIN HOLDERS BEHAVIOUR

“With Bitcoin, I'm thinking multiple times before doing anything with it.” (participant 6)

Deep Learnings

BITCOIN HOLDERS BEHAVIOUR

Bitcoin holders' perception of Bitcoin as a token

INSIGHT

Derisking behaviour regarding Ledger and other cold wallets:

Some of the participants mentioned that they have several Ledger wallets with different purposes. There have really cold wallets called "Vaults" which they use only to send Bitcoin to and keep their funds there. These Vaults do not interact with any applications.

They have some hotter Ledgers which they use to interact with dApps. On these Ledgers they only have small amounts of tokens, so if they would be compromised they would not lose a lot of funds.

Deep Learnings

BITCOIN HOLDERS BEHAVIOUR

Bitcoin holders' perception of Bitcoin as a network

INSIGHT

Participants in our study unanimously agree that Bitcoin as a network **is clunky,** hasn't suffered too much improvement, is most of the time **slow** and **extremely expensive** and most of all it does **not offer them any means for them to increase their Bitcoin balance through yield.**

However, they all consider Bitcoin as an extremely secure network.

BITCOIN UNMET NEEDS TODAY

When asked what they would like to do with their Bitcoin today but where not able to 8/10 participants answered **staking**. Most of them consider that their Bitcoin is sitting there doing nothing and they could benefit from putting it to work.

Some other mentions were: using Bitcoin as collateral in a traditional bank to buy a house, or paying up their rent, buying Ordinals. However none of them considered that paying in Bitcoin on daily needs made sense.

Deep Learnings

INSIGHT

DECISION MAKING PROCESS - HOW USERS CHOOSE TO USE A PRODUCT

We unearthed from the interviews that the confidence building and decision on trust for products is done in two steps.

First step: **The pre-decision and due diligence** - this step takes place before the user properly interacts with the product.

We learnt from our participants that whenever they learn about a product that might fit their needs they will go through an entire array of actions in order to check if a product is legit and would work for them. There are several layers where the product needs to score well in order to convince the audience to use it.

Most of them mentioned that they will check at first the product's **website** and will try to learn about it, and they will try to scan for red flags. Then will check the **documentation** and **smart contracts.** If they aren't capable themselves to read the smart contracts they will ask someone from their close circle to check it out for them and explain to them how the mechanism works.

Deep Learnings

INSIGHT

DECISION MAKING PROCESS - HOW USERS CHOOSE TO USE A PRODUCT

Next thing is to start doing the **background check** which means joining the **discord community**, **reading** about the product **on different platforms**, checking what the **influencers** say if it's a yay or nay, check the **team's pedigree** and if they have other successful products or if they have ran with the money, check for **hacks** and means the hacks were mitigated.

Most of them mention that they want to see audits and are looking for Rubber Stamps. It seems like a lot of the participants do not understand exactly how the audits and auditing works, however audits in themselves represent a measure of security and build trust.

We have also noticed the **Squad Goals**: this is a very interesting phenomenon in which do to the vastness of the space and the high complexity of the products and high cognitive demand, individuals and their close group of trusted people will divide their tasks during a product evaluation based on skill set and time. For example the one that has a better technical understanding will help the others to understand how it works. The ones who have more time on their hands will do the detective work. This division can also work just so they can cover more protocols and products.

It was noted that each group has a micro influencer or leader who's opinions have a lot more weight.

Deep Learnings

INSIGHT

DECISION MAKING PROCESS - HOW USERS CHOOSE TO USE A PRODUCT

Two major things are impacting the way the users decide on a product if it concerns Bitcoin. First of all Bitcoin is their most precious token, second of all we are talking about extremely complex products, this means the users will be more prone to spend a lot of time on reading about the product and will dedicate more time into understanding the way the product works, **if the product passed the first trust checks.**

Second step: The product evaluation - this step takes place inside the product when the user assess the product and interaction with the product.

In this step the user will evaluate the interface and the look and feel of it, and they will evaluate the **UX** of the product. The interface seems to be quite important in terms of gut feeling or let's call it system 1 decisions, since an individual will decide if the product is fishy or not.

"If it was built hasty and looks bad I won't feel comfortable to put my money in it, it is definitely a scam."

Another way of evaluation is the **TVL** of the protocol which works as social proofing. If a product has a large TVL will mean that more people use it and it more reliable, however none of the users will choose only based on the TVL.

Deep Learnings

INSIGHT

DECISION MAKING PROCESS - HOW USERS CHOOSE TO USE A PRODUCT

The next on the list is the **APY** of the product. The APY seems to be a very interesting data point for users. It needs to be high enough so it makes sense to deposit the money into the protocol but it has to be low enough no to send SCAM vibes.

Another thing the users want to see about the APY is the explanation of it, how is the APY calculated and what is the mechanism behind the yield.

“A 50% APY will make me run away, it is for sure a scam and I do not want to lose my money.”

The interaction test round

INSIGHT

This is the last step a user takes, ONLY if they are convinced they want to use a product. This is a behaviour pattern that we discovered: users will use a very small amount of funds to interact with the product, this way they will be able to learn the way the protocol works, make mistakes without losing too much money, and also decrease their stress for their bigger deposits. The period of time they wait before they make the next move depends from individual to individual.

**I would like us to probe this behaviour with on-chain data.*

Deep Learnings

INSIGHT

DECISION MAKING PROCESS - HOW USERS CHOOSE TO USE A PRODUCT

The interaction test round

Even though this is the last step, this is a decisive step because a user may consider not to interact the product if their experience is bad. This can translate into having massive friction points and confusing content, anchoring on bad experience, not having a good support system if any issue arises.

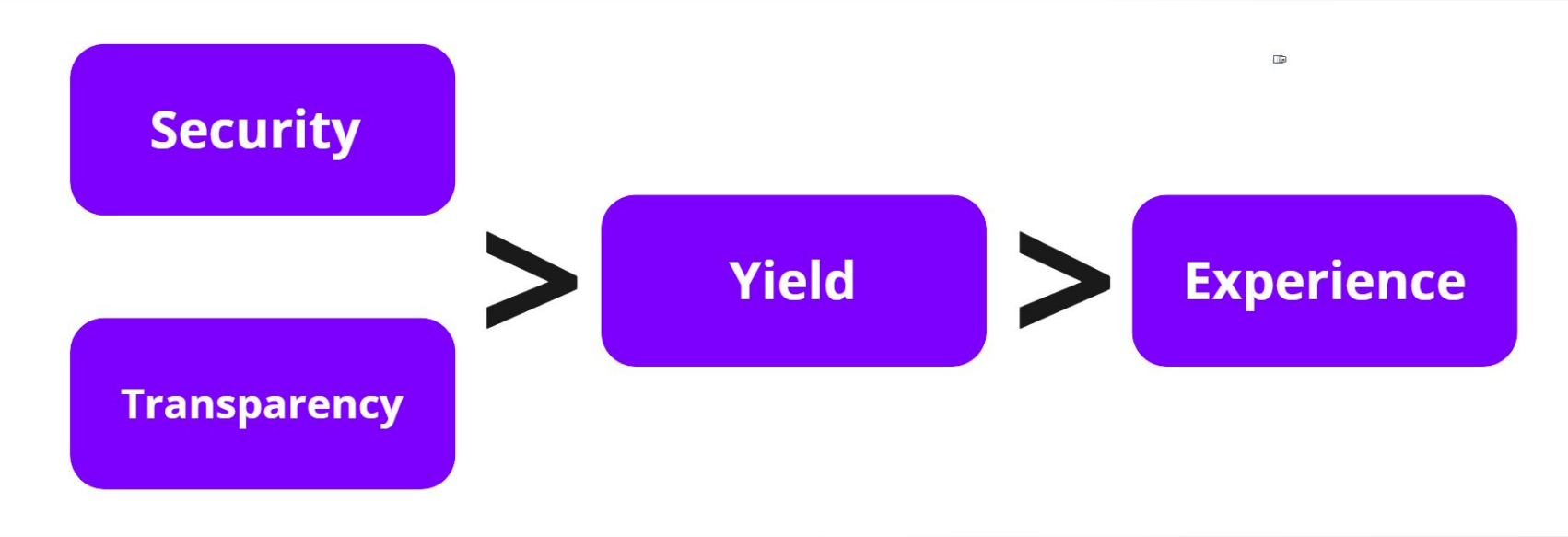
I would like us to probe this behaviour with on-chain data and learn how many addresses add small amounts and how many return with bigger amounts.

Some of the participants mentioned that if everything else checks out they are more prone to turn a blind eye to bad UX.

Deep Learnings

BITCOIN PRODUCT BENCHMARKS

Diagram concerning the most important characteristic a Bitcoin yield product should have based on the participants' answers.



Deep Learnings

INSIGHT

BITCOIN PRODUCT BENCHMARKS

As listed by the participants:

- **Transparency** - of how the system works, of how the yield is produced (if it's from the Bitcoin Network or from somewhere else.
- **Security** - same as the Bitcoin Network.
- Documentation
- Social Proofing and Social Opinion
- Usability
- Interest rate, multiple yield offers if possible
- Self custodial solutions
- Creating more utility for Bitcoin
- Decentralization
- Upfront information like :
    - Cross-chain interoperability how it's done
    - Funds lock period
    - Yield origin

Deep Learnings

BITCOIN PRODUCT BENCHMARKS

“Etherum offers more applications for its users, while Bitcoin doesn’t offer much so people have no other choice but store it.”

”

(participant 9)

Deep Learnings

INSIGHT

THE IMPORTANCE OF YIELD COMPARED TO THE FACTORS LISTED ABOVE

Yield is important but comes secondary in the decision making of the users. In truth yield is important but it's more like a hook rather than the conversion point for a Bitcoin Yield product.

Users will come for the good yield but will only decide to use the product if they consider the protocol is secure and trustworthy.

Deep Learnings

INSIGHT

ASSESSING TRUST

Just as the product assessing trust is assessed via:

- Social media sentiment (twitter, youtube, Reddit, forums)
- Influencers (important people from other protocols) talking about the product
- The number of years the product survived.
- Trust by proxy - the number of integrations with other protocols.
- Podcasts
- Meetups
- In-person meeting with the team at Meetups and Conferences

Screen by Screen Walkthrough

Findings and Recommendations

TESTED ASSUMPTIONS

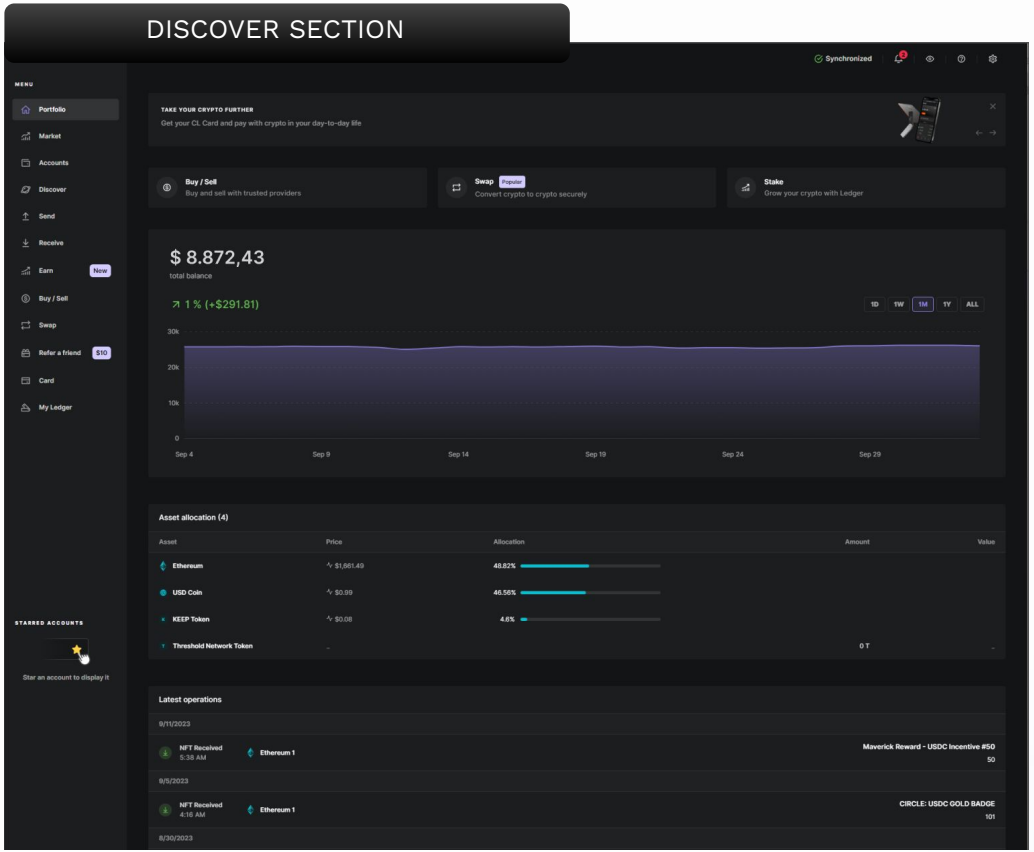
ASSUMPTION 1

Ledger users explore different dApps and uncover new dApps via the Discover section of the Ledger Live application.

ASSUMPTION 2

Users won’t need to get the entire information about the way the mechanism works. Not mentioning the Ethereum network and the bridge will make the users more prone to deposit into the liquidity pools.

Findings and Recommendations



FINDING

Users do not interact with the Discover to find or explore new dApps.

Discover is not seen as a means of discovery.

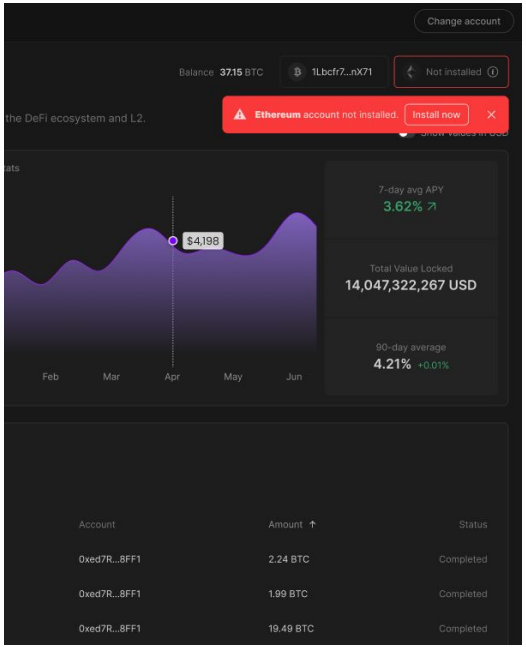
RECOMMENDATION

In order for the users to learn about the Ledger Staking we will need to:

- Funnel them via a joint marketing campaign with Ledger
- Have a banner on Overview page that directs them to the dApp (just like Lido's campaign)
- List the dApp under the Earn category which seems to be much more checked out by the Ledger Live users.

Findings and Recommendations

POOL PAGE



FINDING

Participants had no problem in installing their Ethereum accounts however they were confused by the disconnect between Ethereum and their Bitcoin Yield mental model created by the pool descriptor . They had no clue why this was a requirement and the pools descriptor did not offer them any clue.

tBTC Yield Loop Strategy

Stake any amount of BTC, get daily staking rewards

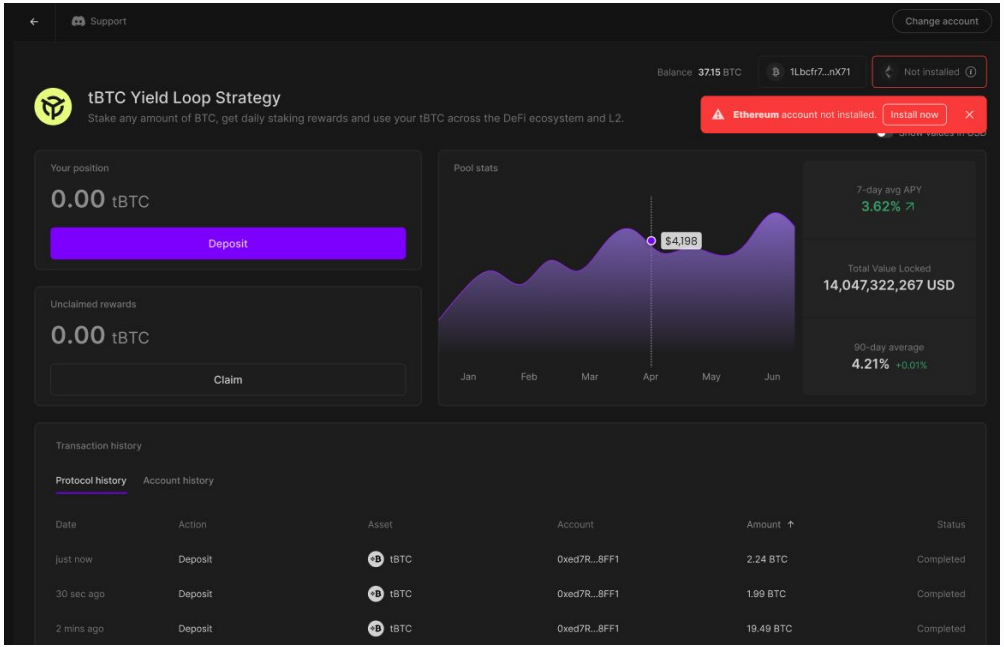
This lacking of information lead to erroneous behaviours further down the deposit flow.

RECOMMENDATION

Consider mentioning Ethereum upfront to dissipate the confusion and also to improve the product transparency. Users value transparency a lot when it comes to products that concern their funds.

Findings and Recommendations

POOL PAGE



FINDING

This page is the first contact for some of the users with the protocol and mechanism behind the product.

All participants mentioned that they miss information about the product. Some of the most mentioned bits were: documentation, yield mechanism design, audits, a website link.

This information is extremely important in the assessment of the product and decision making process.

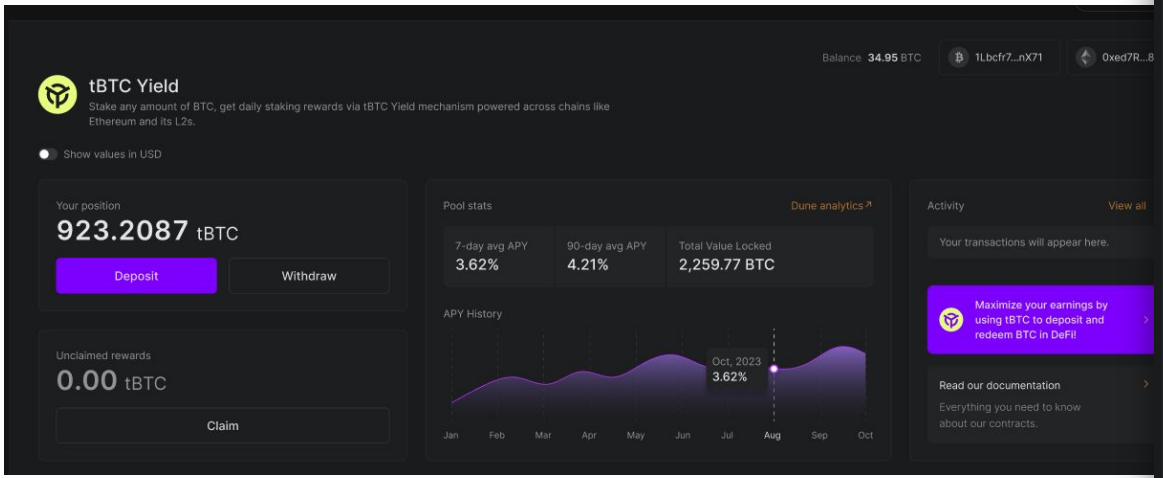
RECOMMENDATION

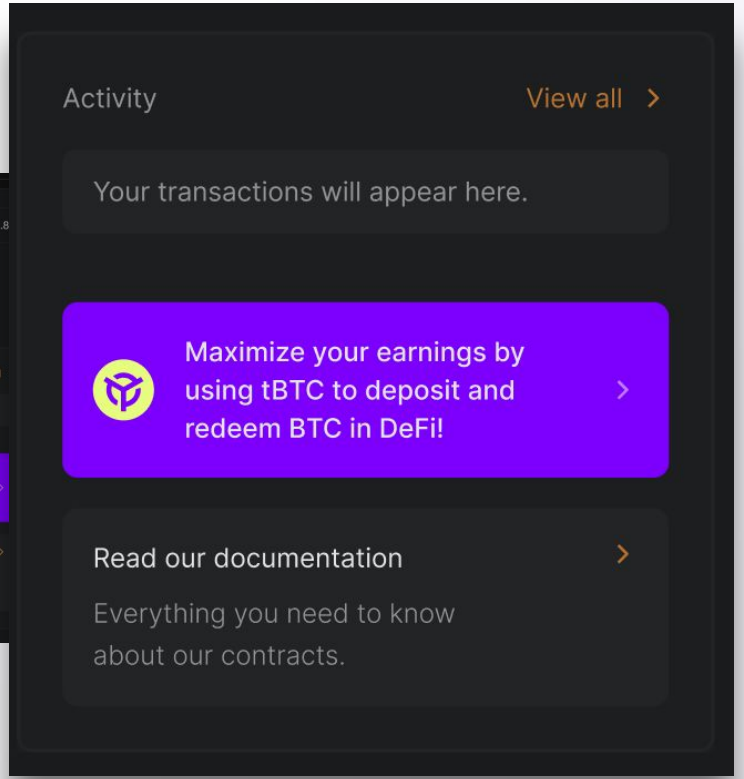
Consider including this information in the pool overview page, the easier to find the better.

Make sure to keep the user inside the dApp so instead of linking to the documentation outside of the dApp, bring the information inside so you don't cause unnecessary bounce.

Findings and Recommendations

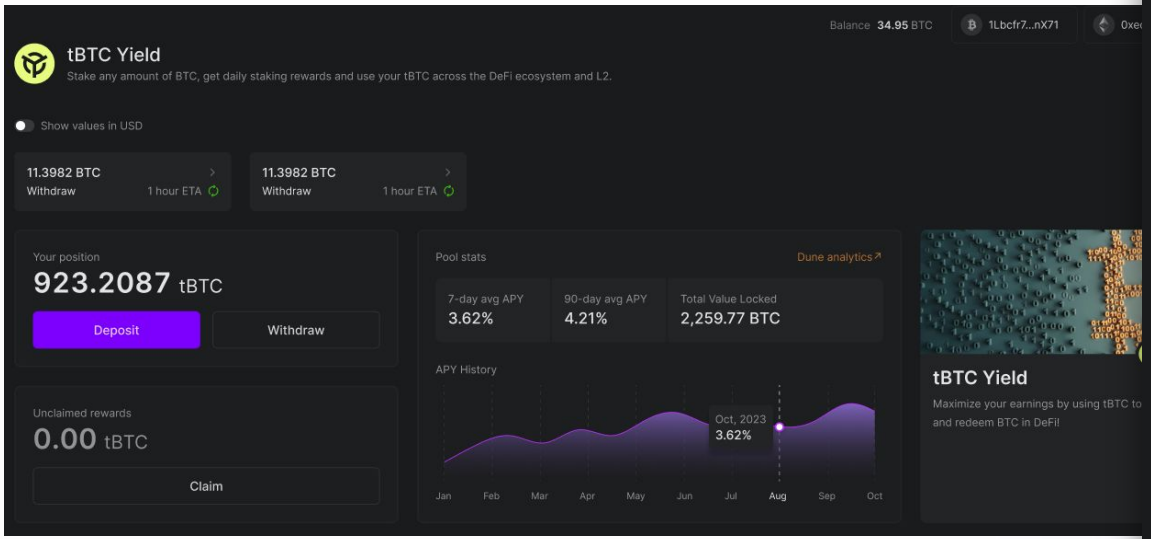
IMPROVED UI

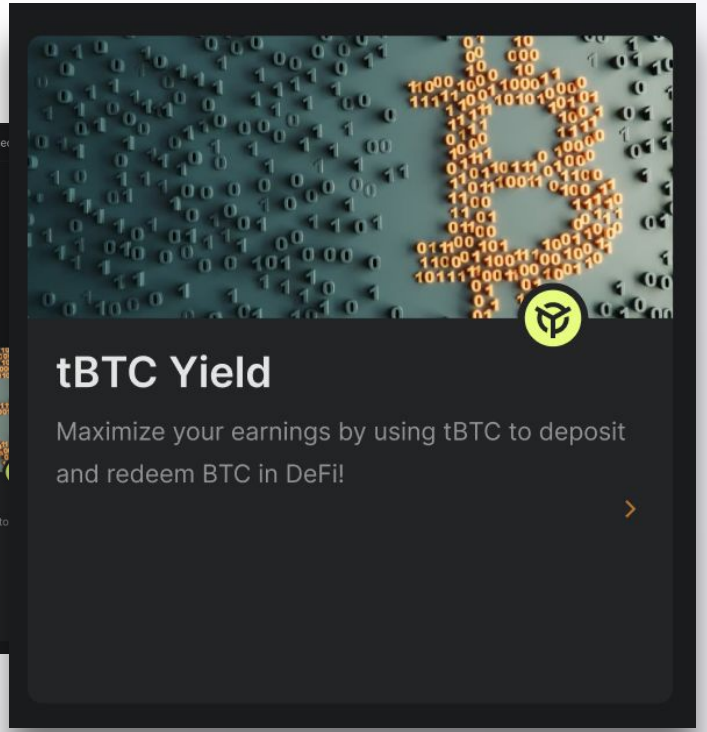




Findings and Recommendations

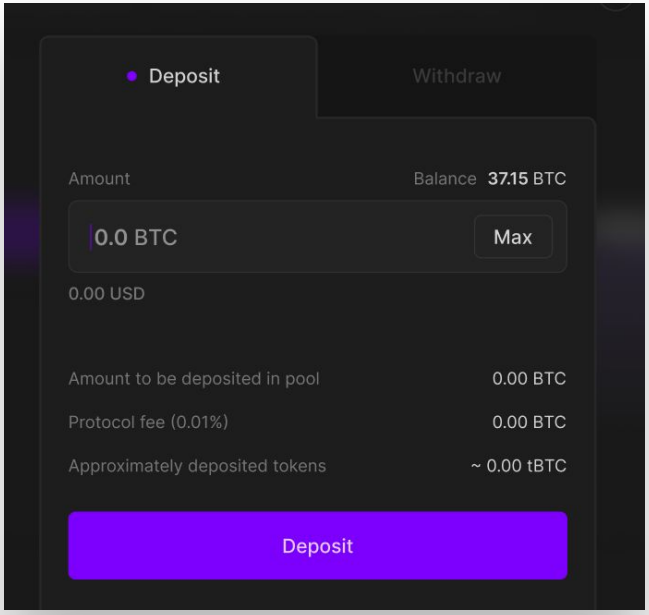
IMPROVED UI





Findings and Recommendations

DEPOSIT DIALOG



FINDING

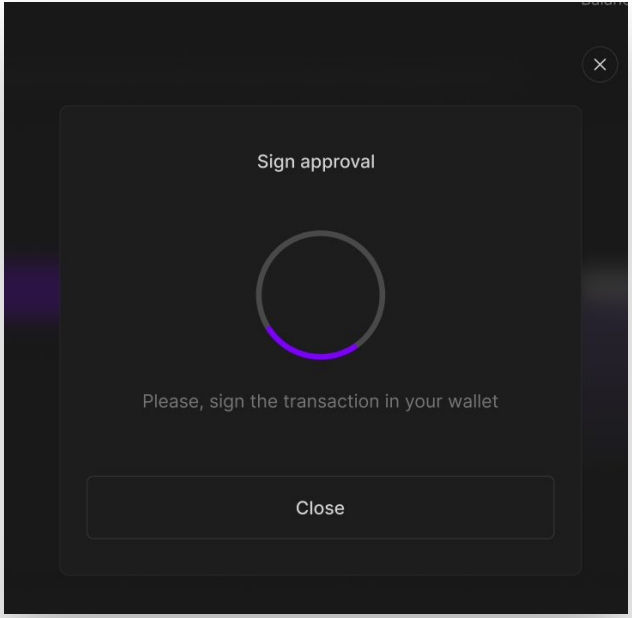
It seemed like a lot or participants wanted to see the entirety of the fees upfront.

RECOMMENDATION

Consider displaying an approximate of all the fees upfront. A total in USD might work quite well.

Findings and Recommendations

ETHEREUM TRANSACTION



FINDING

The Ethereum transaction triggering caused a lot of confusion to the participants as mentioned earlier by the study due to the lack of information regarding the fact that the staking process involves Ethereum.

CRITICAL: This point in the flow as designed currently presents a considerable risk of failure to some of the users, which will lead to a lock of funds. (9 months)

During the study we have observed that several participants canceled the flow after the Bitcoin deposit when they encountered the Ethereum transaction to go back and read more about it.

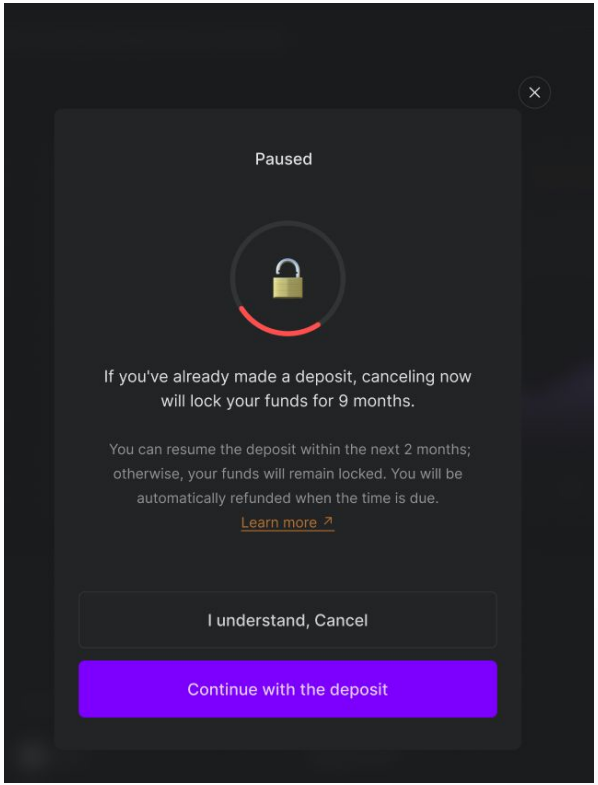
RECOMMENDATION

Consider preventing this error by:

- providing the Ethereum information upfront
- Informing the user about the consequences of their actions
- Provide a resuming method

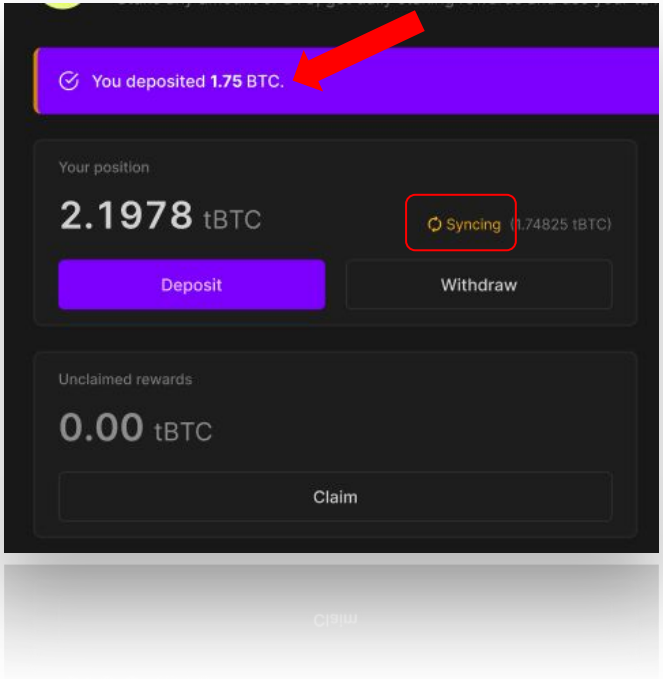
Findings and Recommendations

ETHEREUM TRANSACTION



Findings and Recommendations

POST DEPOSIT SCREEN



FINDING

The majority of the participants either did not notice the “Syncing” label at all or noticed it but had no clue it was clickable.

They said that after they’ve deposited their usual behaviour would be to leave the dApp - which that if there if there will be required another action on their end in this flow they will need to know from the start because most of them mentioned that they would probably come back monthly only to check the rewards.

RECOMMENDATION

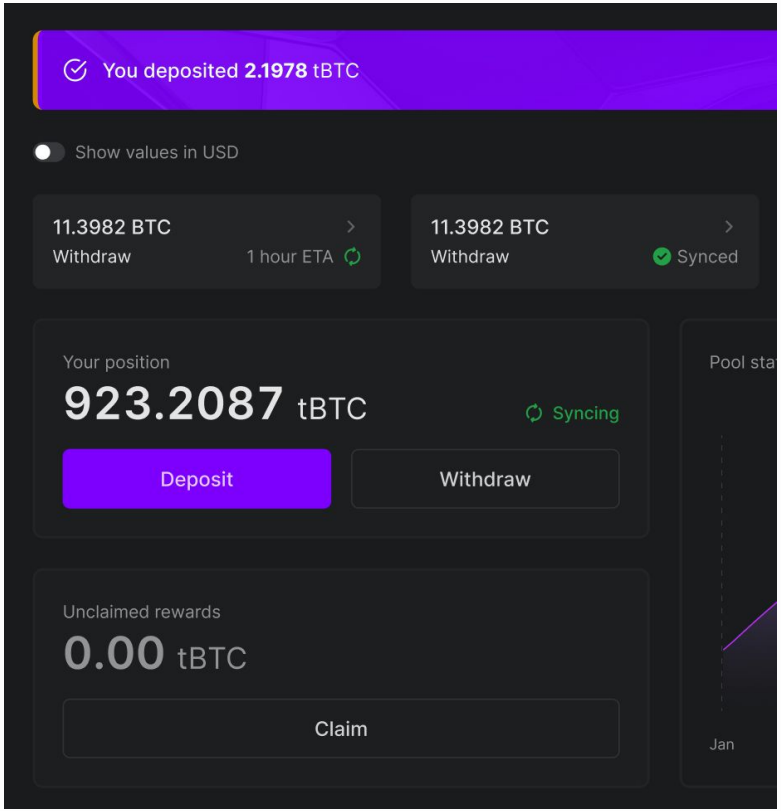
Help the users understand better what is a clickable area and what is not by giving them visual cues.

FINDING

The information toast performed mildly, and some of the participants stated that they would need some more information in this toast after they’ve learnt what lies under the Syncing label.

Findings and Recommendations

POST DEPOSIT SCREEN



RECOMMENDATION

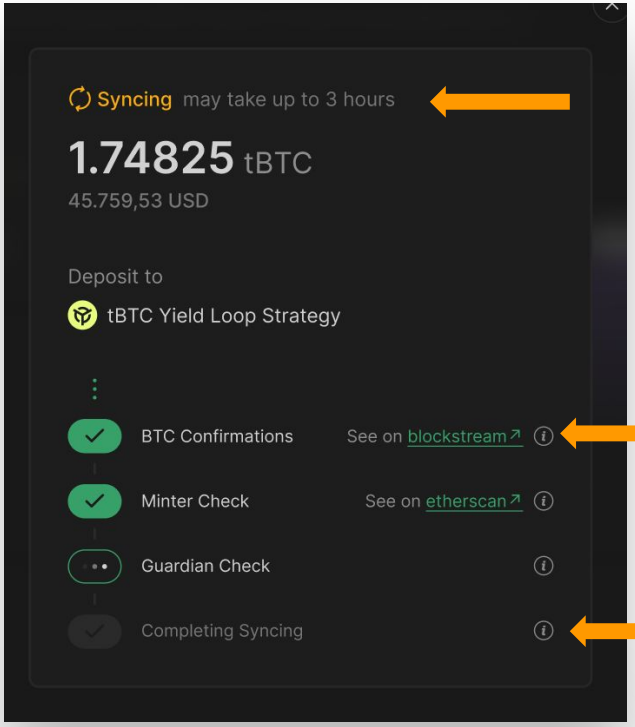
This screen here helps the user understand that their latest activity is still in the making. The cards with a little chevron give the user the visual cue that they can click on it and some extra information will expand.

Progressive disclosure of information

Make sure you display information along the way in the flow and tie it to the context. Do not overwhelm the user with more information than they need.

Findings and Recommendations

SYNCING DETAILS



FINDING

- Once the users got to see the Syncing details they stated that the fact that they were given a time estimate is the most important information there.

- They've also mentioned that they liked the stepped information display but they felt like they needed to understand what each step stood for.

RECOMMENDATION

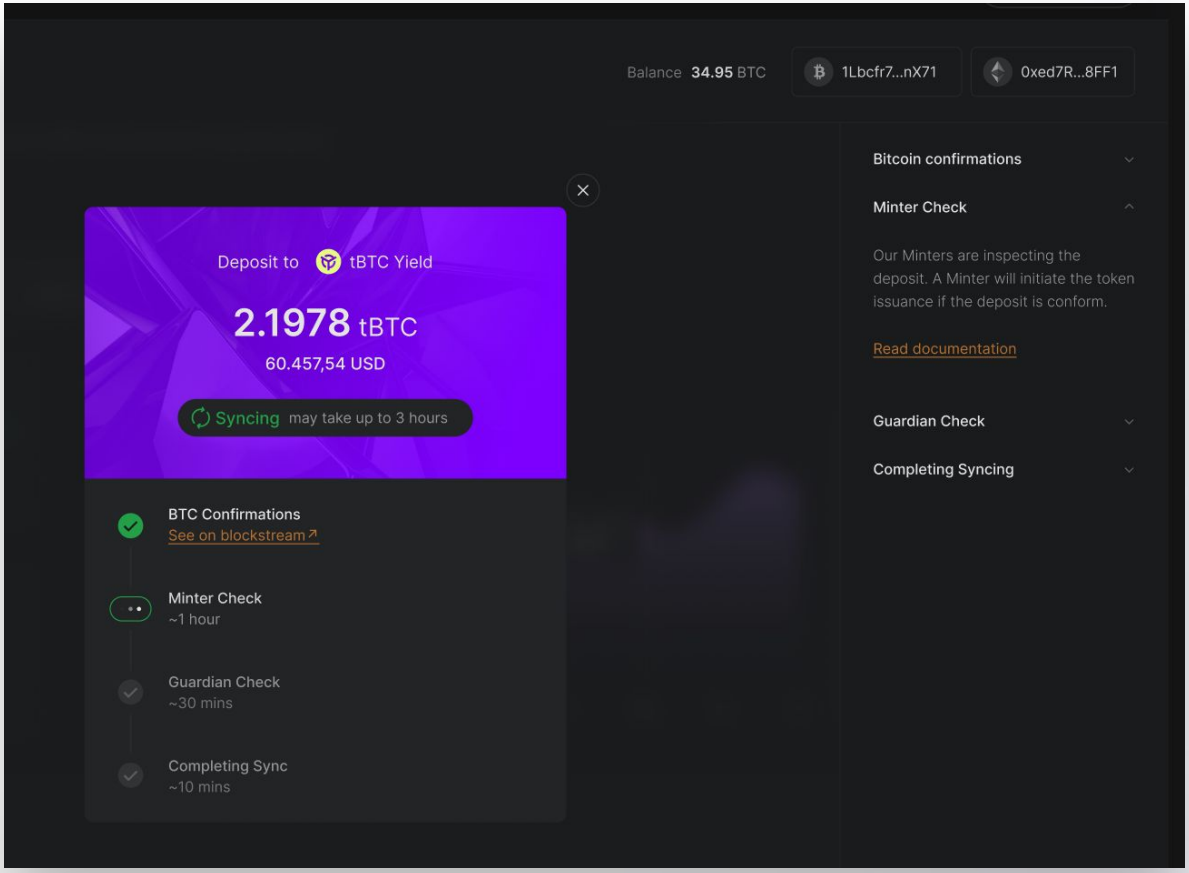
Progressive disclosure of information

- Make sure you display information along the way in the flow and tie it to the context. Do not overwhelm the user with more information than they need.

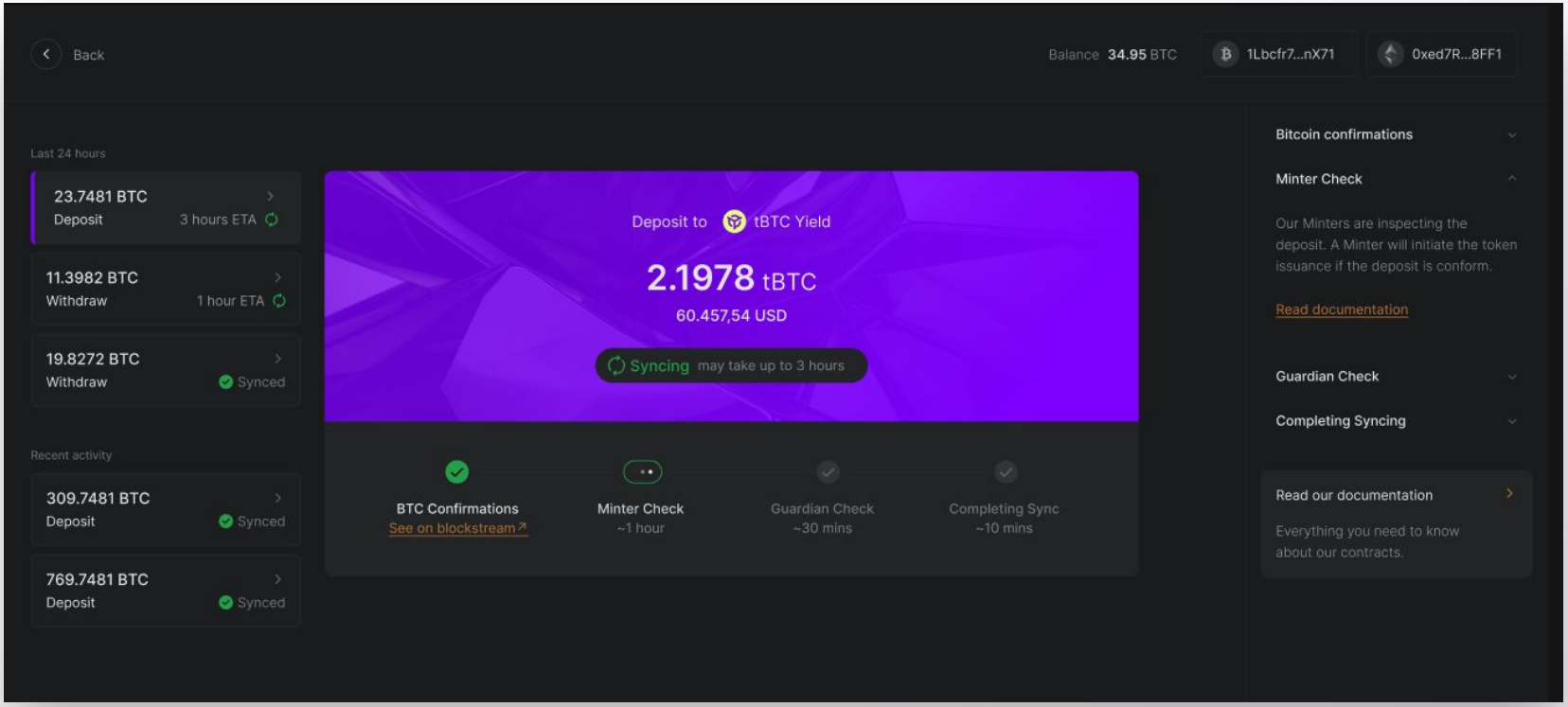
Minimal information display

- Consider displaying only the information that is important on each step of the flow so you can decrease the cognitive load.

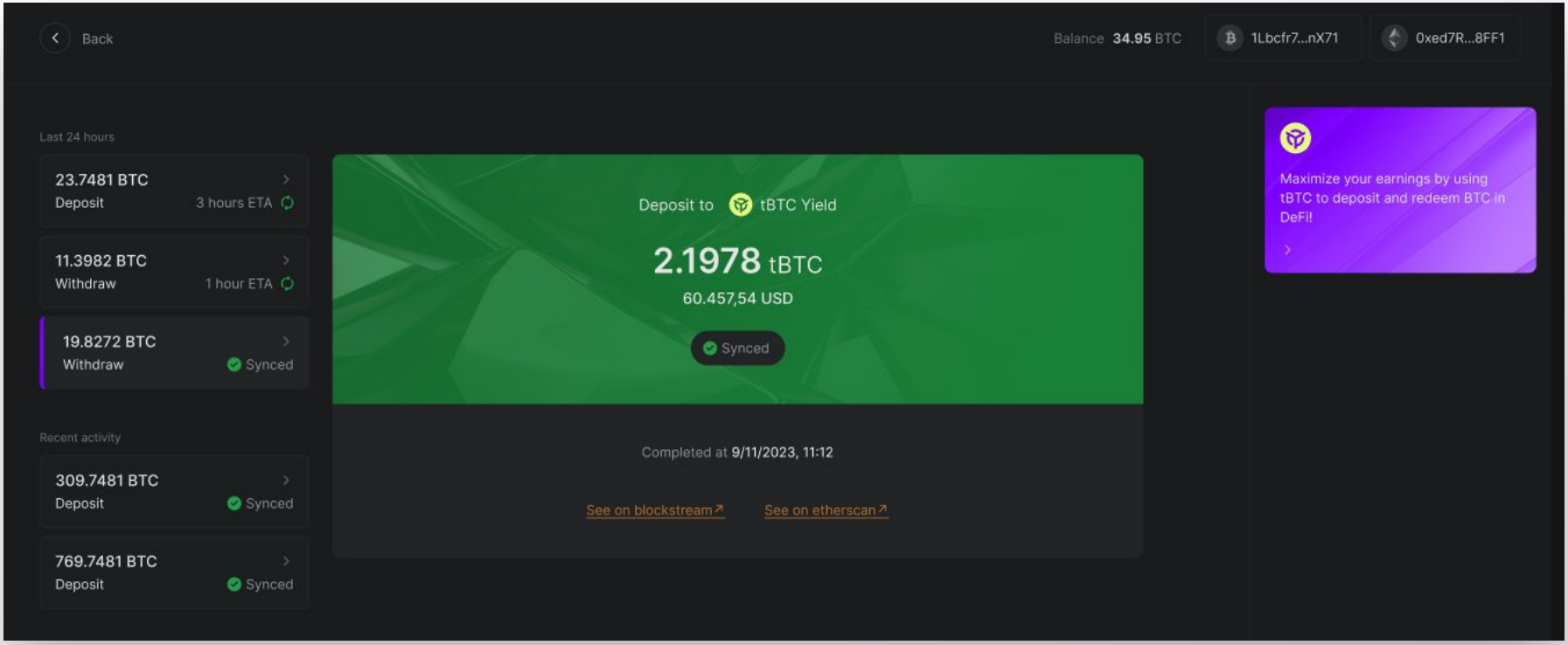
Findings and Recommendations



Findings and Recommendations



Findings and Recommendations



Findings and Recommendations

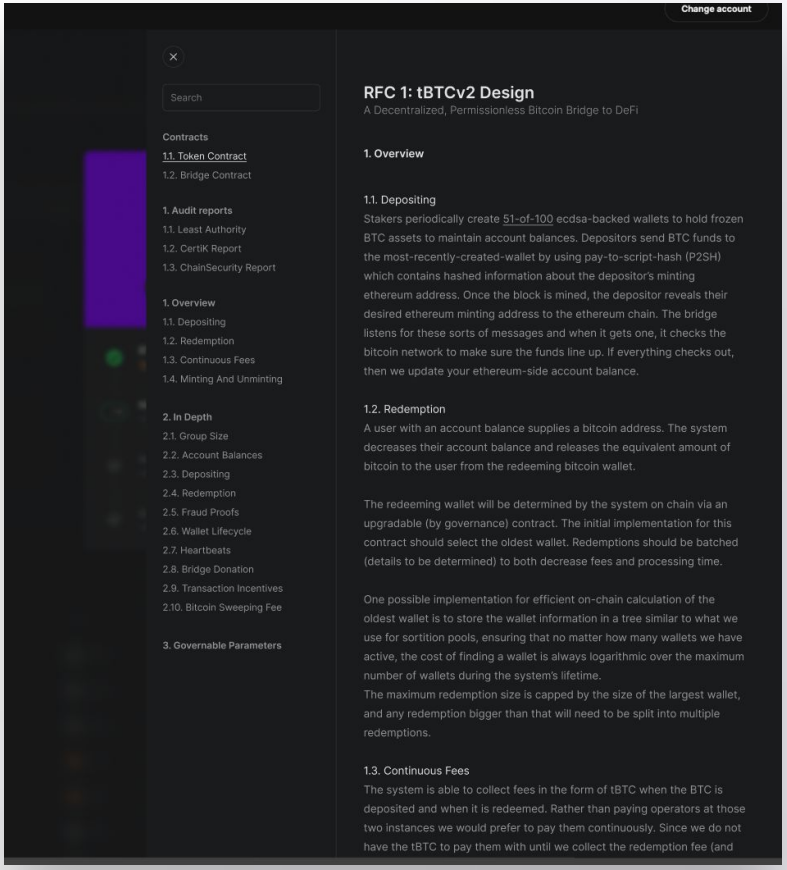
RECOMMENDATION
Since the users aren't spending a lot of time in Ledger Live and they are interacting with the dApp through an iFrame, consider providing all necessary information inside the dApp.

Try not to add outside links.

Create a "Documentation area" bespoke for this dApp

Simplify users lives by sharing with them:

- Contracts
- Audit reports
- Mechanism Design explanations and walkthroughs



Staking Experience Rating

AVERAGE RATING **5.75**

Average Rating - 5.75

Why it didn’t score 7? Reasons stated by the participants:

- They don’t have enough information about the protocol. The dApp treats them as they’ve already decided to use it.
- It takes some time for them to understand that the pool is on Ethereum.
- They all think the staking is done on Bitcoin which makes them very excited and then they feel a bit disappointed when they find out is on Ethereum.

Final thoughts and takeaways

Bitcoin Holders' Perception and Behavior Summary:

1. Perception of Bitcoin as a Token:

- Majority use centralized exchanges for initial Bitcoin acquisition but don't store their funds there. Instead, they transfer to cold storages.
- Bitcoin is predominantly seen as a store of value. Many participants have an emotional attachment to their Bitcoin, viewing it as a financial safety net.
- This leads to a cautious approach in decisions involving their Bitcoin, indicating a low risk appetite.

2. Cold Wallet Behavior:

- Participants use different types of Ledger wallets:
  - "Vaults": Used purely for storing Bitcoin, without interaction with any applications.
  - Hotter Ledgers: Used with dApps and hold smaller Bitcoin amounts for reduced risk.

3. Perception of Bitcoin as a Network:

- Bitcoin's network is seen as slow, costly, and lacking significant improvements.
- It doesn't offer opportunities to grow Bitcoin holdings through yield.
- Yet, its perceived security remains a strong point.

Final thoughts and takeaways

Bitcoin Holders' Perception and Behavior Summary:

4. Trust Building & Decision Process:

- **Pre-decision & Due Diligence:**
  - Initial product research includes website checks, looking for red flags, reviewing documentation, and understanding smart contracts.
  - Background checks involve joining communities, reading reviews, seeking influencer opinions, checking the team's history, and ensuring no past scams.
  - Audits are essential for security assurance.
  - There's a tendency for groups to split tasks based on skill sets during product evaluation, often influenced by a group leader or micro-influencer.

- **Product Evaluation:**
  - User experience (UX) and the interface play crucial roles in initial impressions.
  - Total Value Locked (TVL) serves as social proof.
  - Annual Percentage Yield (APY) is a key metric, but it needs to be balanced — too high might signal a scam.

Final thoughts and takeaways

Bitcoin Holders' Perception and Behavior Summary:

4. Trust Building & Decision Process:

- **Interaction Test Round:**
  - Users typically start by investing a small amount to test the waters.
  - A bad experience might deter further interaction, although some participants may overlook poor UX if other factors are satisfactory.

Factors influencing trust include:

- Transparency, security, usability, interest rates, self-custodial solutions, utility for Bitcoin, decentralization, clear information about cross-chain interoperability, funds lock period, and yield origin.
- Yield is a hook, but security and trustworthiness are conversion points.
- Trust is gauged via social media sentiment, influencers, product longevity, integrations with other protocols, podcasts, meetups, and direct interactions with product teams.

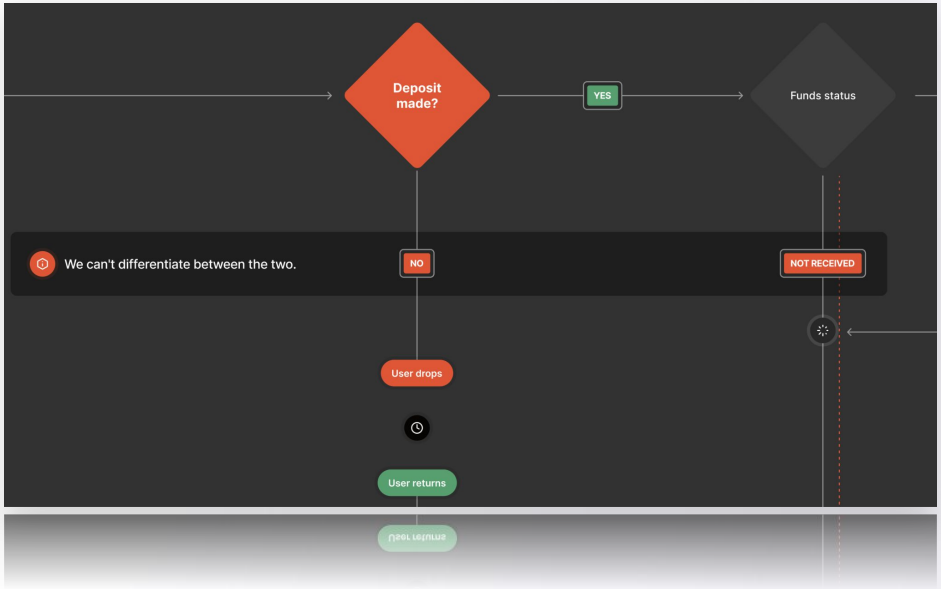
Suggestions:
- Probe the interaction test behavior with on-chain data to understand user patterns better.

What’s Next

NEXT STEPS

Following this iterative user study the next action will be taken:

- Include the findings in the new design iteration of the tBTC dApp
- Run a new set of Usability Tests with at least 5 people to delve on the critical scenario of users abandoning the flow after the Bitcoin deposit.



Love your users!