Hub

Human Trust Protocol

An introduction
What's Wrong With Trust on the Internet?

The Internet has dramatically increased the number of people who users can interact with, but it has not done much to help users trust them.

- **Dunbar number**: 150
- **Average # of Facebook friends**: 350
- **# of potential contacts on the Internet**: 3,800,000,000
Problems

Fundamental Issues With Content & Trust

Volume & quality of content
Social platforms and messengers are flooded with unwanted messages and inaccurate or misleading content that lead to faulty decision making.

Maximum # of trusted contacts is limited
The Dunbar number says the average person can maintain at most 150 trusted connections, yet today's world demands interactions well beyond this limit.

Not enough trust online
Instead of completing transactions online, users rely on phone calls and face-to-face meetings to consummate transactions.

Issues With Centralized Reputation

Partial and fragmented
A user's reputation is fragmented across multiple services, hindering an efficient, comprehensive & transparent view of their trustworthiness.

Limited ability to manage it
Reputation data is embedded and owned by application creators who control and exploit it.

Lack of portability
After investing significant effort in fostering trust in one community, users are unable to transfer their trust elsewhere.
Opportunity
Greater trust unlocks economic opportunities for billions of people

Economic opportunities >$2.7T

- Sharing economy $335B
- Social networks & messengers $150B
- Online-to-offline (O2O) $431B
- B2B $1.8T

Annual worldwide revenue by use case by 2025
Market cap in the trillions for a cryptocurrency that will power 10-20% economic opportunities on a blockchain

Sources: PwC, Facebook, Forrester, TechCrunch
## Use Cases

The Human Trust Protocol is valuable in many scenarios

<table>
<thead>
<tr>
<th>Messengers and Online Communities</th>
<th>Peer-to-Peer Marketplaces</th>
<th>Social Networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation and trust results from understanding interactions in messaging, group chats and online forums. Trust among users is increased, and it becomes possible to surface experts and influencers.</td>
<td>Transactions between sellers and buyers of products and services can be rated, reviewed and their outcomes tracked. This reputation history conveys the trustworthiness of sellers and even the reliability of buyers.</td>
<td>By associating posts, sponsored updates, and marketing messages reactions and activity from users and companies, trustworthy sources of content are surfaced, and the authenticity of information can be known.</td>
</tr>
</tbody>
</table>
Introducing Human Trust Protocol
Human Trust Protocol
Solves endemic trust problems & usable in any community and marketplace

1. Verifiable & portable trust
2. Self-sovereign reputation data
3. Multi-dimensional reputation
4. Context-sensitive trust scoring
5. Incentivization of trustworthy interactions
Three Pillars of the Protocol

**Identity**
Foundations
Associate reputation data to identities. Each account will reference an identity using decentralized digital identities

**Reputation**
Past outcomes
Capture rich and raw reputation data by which applications can enable users to make the best interpretation of trustworthiness

**Trust**
Future behavior
Provides for evaluating a user’s capability and intent on a new interaction

Human Trust Protocol

Decentralized Trust Network
Decentralized nodes anchor verifiable data on a blockchain with scalable data storage off-chain.

The trust network uses a multi-layer node approach for scalability. Validator nodes accepting write transactions and synchronize using BFT consensus. Observer nodes provide read-only requests and mainly serve reputation data.

Clients access the Protocol for reputation data to help users assess trust. Trust evaluators score reputation data.
On interactions and transactions, participants pledge stakes.

**Scenario 1**
When a task is successful, participants earn reputation and get their stake back in addition to rewards.
Scenario 2
When an interaction does not go as expected, an arbitrator may get involved. If they decide in favor of the customer, the trust stake for both are redistributed to the customer. Either way, both participants develop more reputation from their interaction.
Hub Token Economy & Uses

1. Pledging stake on tasks
   - Incentivizes users to be trustworthy

2. Operation of nodes
   - Incentivizes increased decentralization of the network

3. Payment for task usage
   - Incentivizes community developers to create additional application scenarios

4. Payment
   - Increases adoption and engagement of the Protocol by users
Many interactions will need trust

Developers in the community can create new tasks for a Task Store to extend the Protocol and mine tokens from their use.

Examples:
- Sell a product or service
- Post a job
- Join a community
- Make a post
- Sign a contract
- Collect an invoice
- Arbitrate a dispute
- Assign a title
Proof of Concept reputation system for ICOs

Find the Best ICOs
Trust scores are calculated on ICO projects and investors from multiple data sources

Find the Best Investors
Users stake on votes on the likelihood of ICO success and are rewarded if they're right

Integrated with HTP
Proof of concept application built on the first implementation of HTP
Decentralized Job “Hub”

Jobs marketplace with verified profiles

Verified Credentials
Profile credentials, experience & skills are verified by third parties

Candidates are Paid
Candidates are paid to keep their data up-to-date and when they are contacted by employers
Hub App

The **Hub app** is a next-generation professional network built on a messenger experience.

It will serve as a proof of concept that will use and advance the Protocol.

**Integrated with HTP**

The Hub app will serve as both a consumer and contributor to the Protocol’s reputation data in helping users create trust in the communities that the app will support.

**Security and Privacy**

End-to-end encryption of both messaging and community content with opportunities to decentralize the app’s backend.

**Communities**

Hubs, which are communities, that organize around industries, business communities, interests, networks, associations, and collective efforts.

**Messaging**

Built-in messaging system for fast and secure one-on-one and group messaging (including multimedia messages, document attachments, voice/video chats and chatbots).

**Transactions**

Transactions will be supported on the community and the peer-to-peer levels.
Roadmap

2018

Q1
ICOhub “PoC” application
Provisional launch of HTP

Q2
MVP launch of HTP
Launch of Hub token
Select community partners
Security audits

Q4
HTP Testnet delivered
Development of Hub app
Begin ICOhub “PoC” application

2019

Q1
Trust stakes defaults white paper
“PoC” Trust Evaluators

Q2
HTP version 3 launch
(Task taxonomy, task store)

Q4
HTP version 2 launch
Hub App MVP with HTP
“The currency of the new economy is trust.”
—Rachel Botsman