The Hicky Network

A decentralized dating application
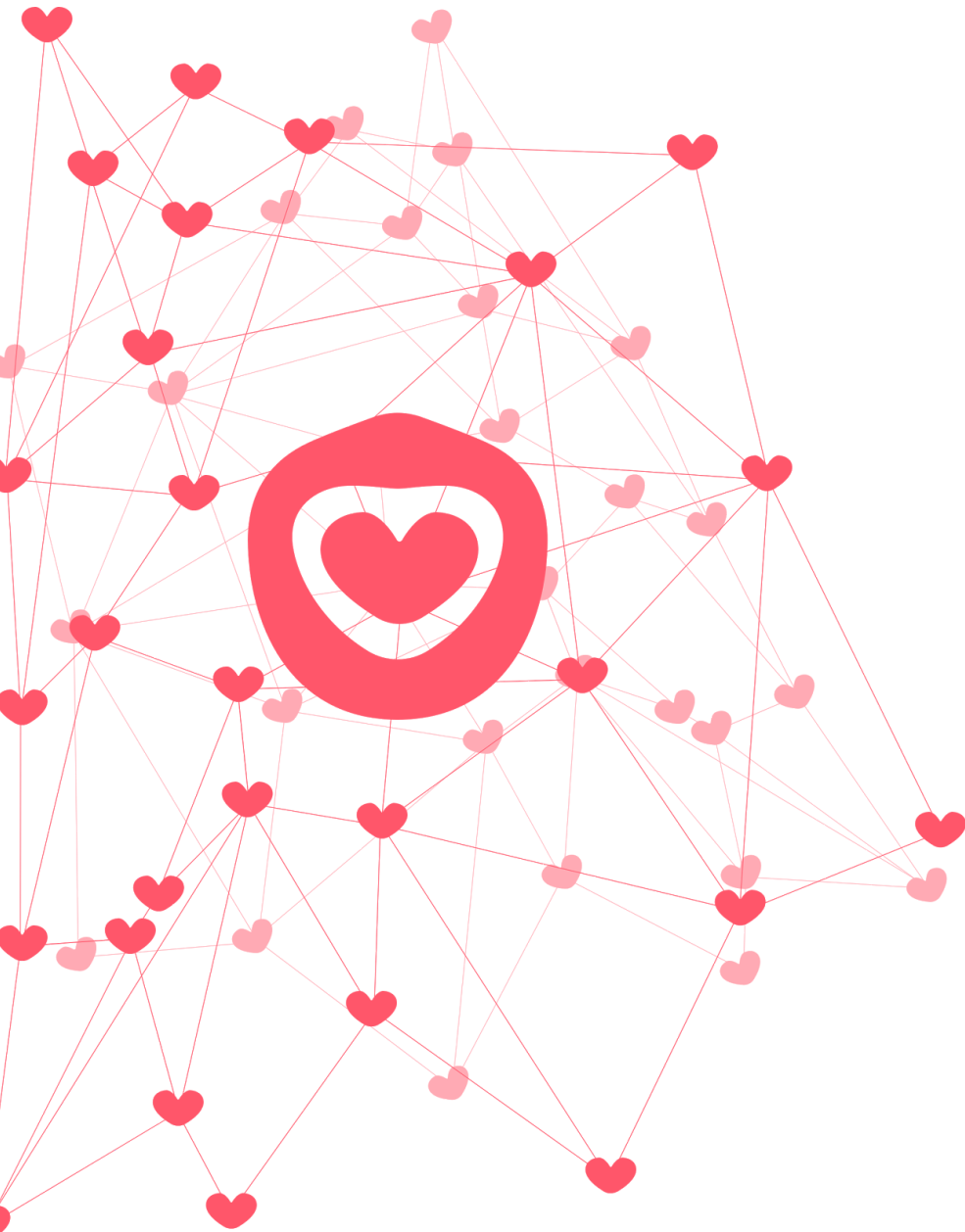
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Abstract

Hicky is a decentralized dating platform built on the public Ethereum blockchain.

The vision of Hicky is to create a dating experience that merges real-life social dynamics with the behavior incentivizing effects inherent in a tokenized economy. A decentralized platform eliminates information security risks while enabling a superior alignment of incentives among participants in the network.

The Hicky token is a modular utility token that fuels interactions in the Hicky network. Interactions include the ability to match with other users, the facilitation of encrypted messaging between participants and a system of incentivized user-driven governance.

This document highlights the case for building a decentralized dating network on a public blockchain and details a proposal for such a network.

1. Background

Hiding behind the anonymity provided by the Internet has always had both positive and negative implications. On the one hand we have the freedom to express our opinions without fear of retribution. We also have the democratizing effects of creating a level playing field. On the other hand, the drawbacks of anonymity include fraud and trolling.

When it comes to online dating, most people will agree that anonymity is generally an undesirable characteristic of the concept. Participants face the possibility of meeting someone they weren't expecting. But this is just the beginning of the problem. When we consider how to actually bring people together in lasting relationships, honesty and transparency are vital. Lying about yourself to land a date creates false expectations, leading to disappointment when people meet in real-life and resentment if secrets are revealed later in the relationship.

In order to create better dating experiences and ultimately better relationships, a complete remodel of the online dating sphere is necessary. In the following sections we lay out how, with a decentralized community-driven framework, we are able to vastly improve the online dating experience.

2. Legacy Dating Apps

Online dating platforms are traditionally comprised of two main parties: the user and the owner (platform). The user either pays a monthly fee to be given access to the services provided by the owner or is given access in exchange for exposure to advertising. The owner aims to maximize profits, presumably by providing a service that attracts the highest number of monetizable customers.

It may seem that this relationship is symbiotic, however, closer analysis reveals that the user gains the least while risking the most.

Through online dating platforms, users gain access to a large and (ideally) focused dating pool. This increases their chances of finding a desirable partner, which in fact constitutes the primary purpose of using the service.

The majority of the value created by legacy dating platforms, however, is retained by the owner. Online dating generated approximately $3 billion in revenue in the US in 2015 (IbisWorld, 2017) and $1.6 billion in China in the same year (Bloomberg, 2015). Users of such platforms meanwhile, are left with a far from ideal matching service. A recent study found that relationships that start out online are 28% more likely to break down in their first year than relationships where the couples first met face-to-face (Aditi, 2014). Additionally, current platforms carry serious inherent risks for the users.
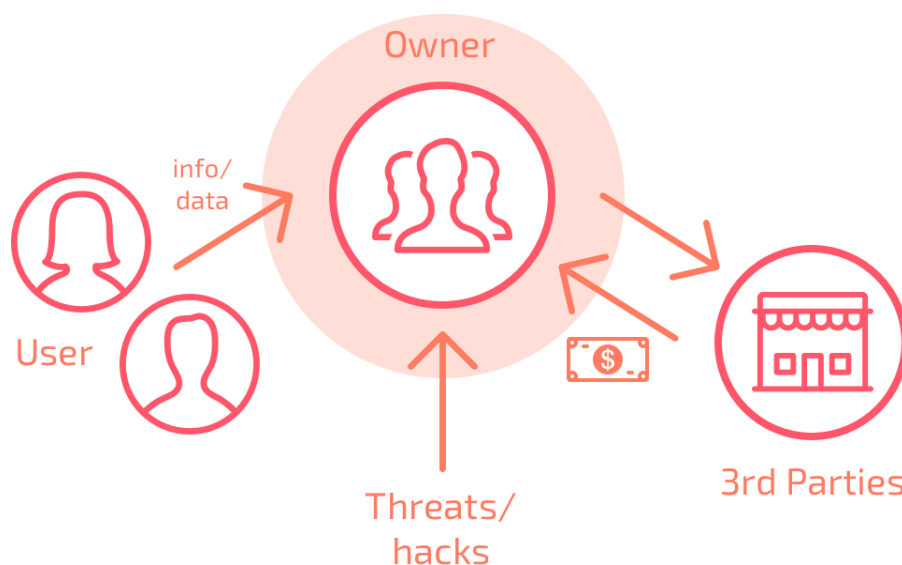
Risks

Online dating is based on the exchange of personal information. In this context the amount of detail provided in an online profile is positively correlated with the chance of creating a successful match. The quantity and quality of the individually uploaded information varies based on the individual user. Due to differences in personal preferences, the sharing of personal data must be treated with the utmost security measures.

In legacy systems user's personal information is processed and saved on a centralized machine. As this setup is increasingly less efficient, especially in questions of data security (see Ashley Madison Hack) it is imperative to develop new methods for data storage, management and signing. In the following sections we will explain the elements of online dating where most risk is present.

Information Theft

The more information a user uploads to the platform, however, the more exposed that user becomes to information theft. When a centralized platform is hacked, a user who has uploaded a lot of personal information is more exposed than a user who has uploaded only a little.

Online dating platforms are particularly attractive targets for hackers precisely because of the large amount of personal and intimate information they hold. The 2015 Ashley Madison hack resulted in numerous cases of blackmail, netting extortionists untold millions of relationships, loss of job, and even in several cases, loss of life (suicide) (The Guardian, 2016).

Fraud

Users of dating platforms are also exposed to fraud. A 2016 sampling of 8 million online dating service profiles found that 10% were complete fakes (sift science, 2016). A common form of fraud is the so-called "Romance Scam" in which victims are manipulated through romance into giving up money. The FBI estimates this results in over $100 million in losses per year, with the average victim getting duped for $100,000 (FBI, 2016).

Wasted Time and Money

While less serious but still relevant, users risk wasting their time and/or money in hopes of building a relationship. With about 30% of men reportedly lying about their finances and job, and a comparable percentage of women lying about weight and height (NY Times, 2011), a significant proportion of people who do actually meet in person are likely to be disappointed. Furthermore, legacy dating platforms have been known to fabricate desirable user profiles in order to attract customers. This practice includes the use of sockpuppet bots that drag users into pointless chat designed to simply keep them engaged on the platform. Some platforms have even included the right to do so in their terms of service, claiming the intent is to improve user experience and monitor compliance (HG, 2016).

An Ineffective and Inefficient System

While online dating platforms promise to improve the chances of finding an ideal partner, the evidence runs in contrary to this thesis. A 2017 study found that 22% of Millennials think technology has made finding love *more* difficult, with 57% saying they're lonely (Forbes, 2017).

In the following sections we lay out a scenario in which the users of the platform possess a real stake in it and the incentives of all parties involved are aligned to promote behavior that benefits all participants equally and leads to far more effective dating results.

3. The Socio-Economic Dating Network

While the drawbacks of online dating are clear, its potential remains. Adoption of online dating platforms by young adults, after all, has roughly tripled since 2013 (PEW Research, 2017).

In the ideal scenario, users gain access to a wider dating pool that is specifically catered to them. Additionally they have the chance to be effectively matched by an intelligent algorithm based on the enriched data they provide.

The challenge therefore is to maintain the benefits offered by online dating while eliminating the disadvantages of the status quo centralized platforms outlined above. Hicky sets out to do this by merging real-life behavior with the decentralized online platform. We call this the Socio-Economic Dating Network and claim it has the potential to offer the best of both worlds.

Leveraging Motivating Factors

Two of the strongest motivating factors for humans are survival and procreation. It is human nature that as soon as the former is secured, the latter is pursued. In the modern context these factors can be translated to economic improvement and relationship building respectively. By tapping into both of these drives, our socio-economic dating network leverages the primary factors that motivate human behavior.

The Importance of Effort

In legacy dating platforms, a few high-status users are typically overwhelmed by requests. For these lucky few, online dating is easy. They have their pick of the crop. The majority of users, however, get few requests. Instead they are "yelling into the void", wasting their time attempting to connect with people who will never respond.

In the real-world, however, people who put in effort to build relationships are rewarded. A man who is objectively of a lower status in terms of both appearance and social status may succeed in building a relationship with a woman of higher status if he puts in sufficient effort.

For incentives to be truly aligned in an online dating platform, effort must be rewarded just as it is in real-life. Real-life social dynamics can be emulated in the decentralized online dating platform through socio-economic incentives. Inefficiencies can be eliminated through the rewarding of effort with the result being a more efficient distribution of matches.

Trust as the Foundation for Relationships

The importance of trust in building relationships cannot be overstated. The two main prerequisites for trust are:

1. Users need to feel that they can safely provide personal information.
2. Users need to feel that the information they receive is true.

A decentralized platform is currently the best method of encrypting information, thus satisfying the first prerequisite. In this environment, users can rest assured that any sensitive personal information they choose to reveal will be displayed only to people they expressly give permission to (see section 4: Why Blockchain).

The second prerequisite is satisfied through the verification processes described in section 5 (Decentralised Autonomous Dating) which includes FaceScan technology, voice verification and our system of decentralized governance.

FaceScan   Verification   Trusted Network

4. Why Blockchain

Trust

The trust that is enabled by blockchain technology is bilateral. On the one side, we can believe the information we see, while at the same time we can be sure that the information we provide the platform with is secure from malicious third parties.

We propose verification procedures that involve a combination of machine and human input. This is described in detail in section 5. Once information is verified by the network, it can be considered valid and (due to the immutable nature of the blockchain) also untamperable.

In addition to the verification being done directly within our platform, blockchain based personal verification will grow exponentially in the coming years. This growth is driven both by public blockchain projects like Civic or uPort as well as the various government backed efforts that are currently being explored. The information stored in such projects will be accessible to platforms like ours in encrypted form, meaning that if a user on our platform claims they are 185 cm in height, such information can be verified by checking external public records. The query would be answered as a binary yes/no and therefore not compromise a user's identity. The number of verification and available data points will only increase in the near future, enriching the Hicky ecosystem as the technology matures.

Security

Blockchain technology provides by far the most secure infrastructure to sign personal information. The information is far less susceptible to hacking because it is distributed (in encrypted form) across the network. As no centralized information silos can be targeted, hackers would have to bring down the entire network, a feat that would be prohibitively expensive to achieve.

Potential attacks include the 51%-attack on blockchains with PoW (Proof-of-Work)-based consensus protocols, where the attacker has enough resources to autonomously create a consensus and strategically modify the blockchain.

Other well known attacks on Peer-to-Peer networks include the targeted manipulation of single nodes and the inducing of misconduct towards the majority of the validated peers (eclipse attack).

Hicky is well aware of these types of security vulnerabilities and employs the latest known methods to prevent them.

Democratization

A decentralized platform has the ability to evolve organically and in the interests of its users. Removing the "owner" from the equation means the users themselves decide how the platform grows. Users of the network are literally stakeholders and are thus incentivized to build and improve the platform in a way that benefits themselves. A further implication of this is a stronger feeling of community involvement, something that is particularly important in a platform that is designed to bring people together for lasting relationships.

Decentralization

The benefits of decentralization and the absence of a trusted third party can be reached through the blockchain based consensus mechanism but also through byzantine protocols. We have selected the ethereum blockchain protocol and the ERC20 token standard as our solution.

Transparency

All transactions regarding the revelation of information are to be evaluated in terms of information regarding the ledger status of the blockchain. Depending on the technical implementation, the implementation can lead to a gain or loss in security and or privacy in the system, depending on the security goals and the application. A major security aspect is the integrity/ ability to counterfeit.

Specific Attacks on Blockchains

In general several parameters are necessary for reaching a specified security level. In this context the number of actors within the system plays a large role when evaluating how easy or difficult blockchain specific attacks such as 51%-Attacks are. Cryptocurrency simulations performed by the Frauenhofer SIT illustrate the divergence of blockchain performance with the reaching of a specific security level regarding attacks of double spending and selfish mining.

Code is Code

The dogma (computer) code = (legal) code translates to programmable code defining the undisputable rules for both a blockchain as well as conflict cases which cannot be modified retroactively. This has to be viewed critically just due to the simple fact that the probability that programs, after a certain number of lines of code, do not have any errors. Due to the consensus principle (requiring half of all actors to accept a possible change) it is advisable to vote on rule structures at the introduction of the blockchain and to design them so that they are changeable in an agile manner throughout the entire lifecycle of the blockchain.

Cryptography

The procedures used in the blockchain will need to be verified with regards to their current security levels (including all potential implementation faults). Furthermore the changeability friendliness as well as the projected future security will be evaluated.

Traditional Threat Vectors on Digital Systems

Blockchains and their respective cryptocurrencies are axiomatically subservient to traditional attack vectors on software and digital systems. These include hack attacks on wallets. Here questions such as the storage of private keys ("hot storage" vs. "cold storage") are of importance.
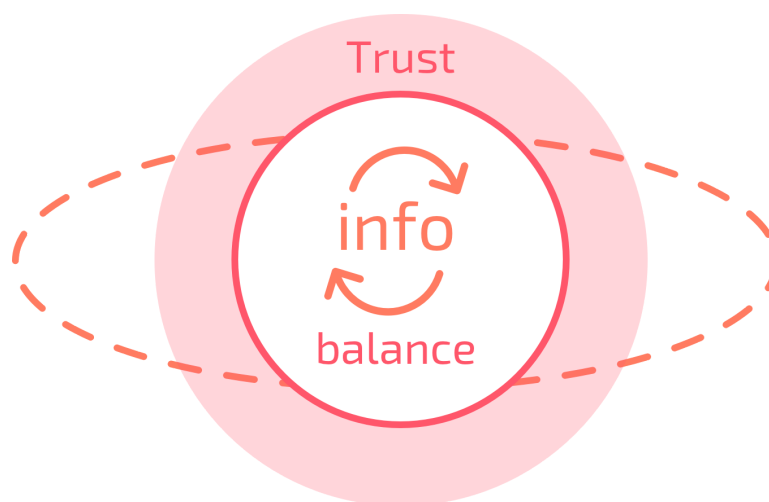
5. A Decentralised Autonomous Dating Network (DAD)

We will use crowd wisdom and zero knowledge proofs, similar to the system that has been proposed by the CAPTCHA project, setting up the DAD as a system running validation by general consensus and algorithmic rules/ smart contracts.

An Economic Behavior Paradigm

The Decentralized Autonomous Dating community runs on an incentivization model that works within the new paradigm of a decentralized token economy. Positive behavior is economically incentivised while community building is encouraged through the stakeholder (decentralized) governance model. The Hicky token, like money in the real world, forms the backbone of this network. It must be emphasized that DAD is democratic and socially driven entity.

Machine Learning and Artificial Intelligence

While Machine Learning and Artificial Intelligence are touted as the be all and end all solution, the barriers to achieving proveable success with these tools are still immense. The difficulty begins with the very definition of success. Is a successful match a relationship that lasts ten years? Or is it one that burns hot for a year before self-destructing? In the first case, proving that the matching algorithm is successful requires vast amounts of data which any system in its infancy (by definition) does not have. While we don't discount the possibility of matching algorithms being effective in the future, we argue that it is foolish to use this as the main matching vehicle at the inception of our platform.

The DAD is therefore a fundamentally human system. Just like the real world, people decide themselves who they would like to pursue and their behavior is judged by their peers. DAD employs safeguards to protect people from the dark side of human nature while economically incentivising (rewarding) positive behavior. The result is a democratised, fair, secure and effective dating platform.

To illustrate the functionality of DAD, it is useful to consider the journey of two fictional users, Alice and Bob in the context of Hicky.

Face Verification

Let's say Alice and Bob want to use Hicky. They will start by building their profiles. In order to ensure the privacy of all participants and to eliminate spamming, users cannot interact on the platform until their identity has been verified.

First, they will take a live picture using the front-facing camera of their mobile device. Then, they will upload a picture of their National Identity card. The platform's FaceScan tool compares the two photos to determine if they in fact depict to the same person. This tool in combination with our other verification techniques, ensures that we are dealing with actual people furthermore tagging their basic physical characteristics. These results will then be immutably signed on the blockchain. All uploaded information for the verification process will automatically be deleted based on the implemented smart contract logic. Due to the technical limitations of the current blockchain solutions, profile information will be stored in the BigchainDB database infrastructure. This architecture will be updated based on the upcoming decentralised storage solutions.
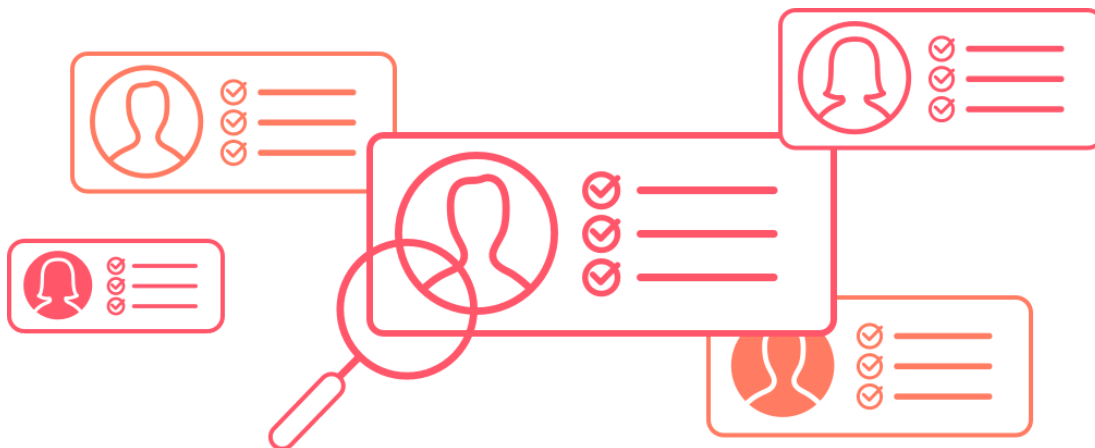
Voice Verification

VoiceVerify will supplement the unique information gathered through the FaceScan technology enhancing the level of biometric identification. Users will be posed one of 36 questions (NY Times, 2017) that they must answer before a chat is initiated. Each user will preview the respective answer and then decides whether or not to engage in the chat.

Voice verification helps solve multiple problems inherent to traditional dating platforms. These include identity, intimacy and trust. By introducing the auditive layer in the system, users can engage and connect with one another on yet another and especially deeper level. The combination of voice, face and text identification is unique to Hicky, establishing both trust and intimacy between the users in the network.

The DAD based consensus mechanism uses FaceScan technology and VoiceVerify data in order to reduce spam and bots, strengthening the community within the Hicky network.
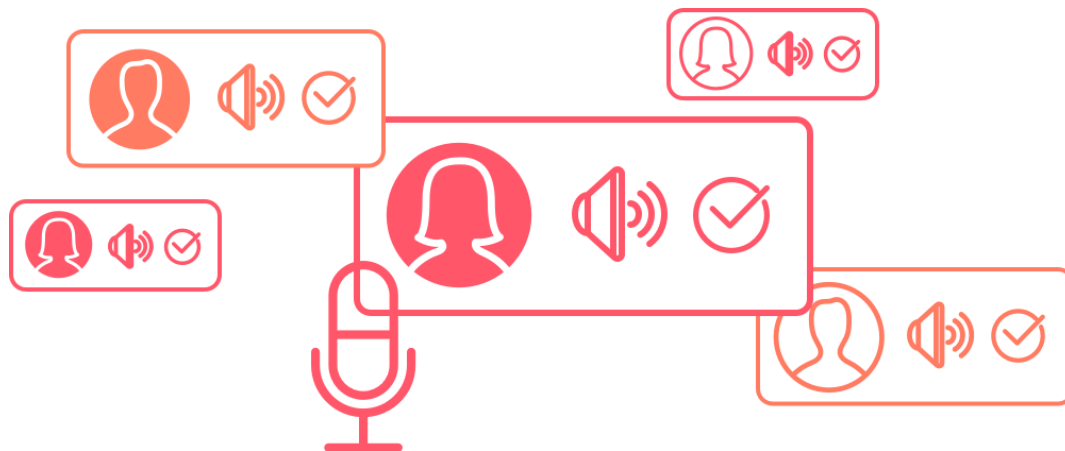
Interaction

Now that Alice and Bob are verified and have decided that they want to engage, they are free to interact. In legacy dating platforms (and most messaging apps in general) the platform acts as the intermediary between actors. When a user sends a message, it is first recorded in a centralized database and then served out to the recipient. Legacy dating apps keep a record all messages the users send. The platform typically takes ownership of this database of information, using it to derive profits through targeted advertising. Furthermore, these silos containing private messages become prime targets for hackers, exposing users of the platform to the potential threat of information leakage.
In a decentralized environment, by contrast, messaging is conducted on a peer to peer basis. Alice and Bob can rest assured that no one else will have access to their messages. Since

there is no central server to collect, store, and distribute messages, there is no chance of eavesdropping by the platform owner. In fact there is no owner. Consequently there are no silos of valuable information to be targeted externally by hackers. A system of decentralized peer to peer messaging enables privacy and ensures the security of users' information like never before. However, this is not without its challenges.

For instance, in a truly peer to peer messaging system, since messages are not stored by an intermediary, both participants must be online at the same time in order to interact. While this may be acceptable in certain use-cases, it is a limitation that must be overcome in order to facilitate the fluidity of communication needed for the building of relationships between strangers in the online dating platform, especially in a mobile environment.

We will be implementing the solution proposed and implemented by the Status project through the use of the Whisper V5 protocol, which has the ability to delegate nodes to do offline inboxing (storing messages while clients are offline). This means that as soon as both parties are online in the network, messages are exchanged and the history of the chat is updated. Nodes offering this service will by extension have the ability to support push notifications. The end result for users should be the same fluid chat they are accustomed to, but with the added benefit of unrivaled privacy and security. Technical details of the open-source Whisper Protocol can be found here.

The Date

To continue the story, let's assume Alice and Bob have been messaging for awhile and decide to go on a date. Before doing so, they must both stake tokens — let's call it a "date deposit." This deposit is locked up for a predefined duration after the date has been completed. If all goes well (meaning neither has a complaint), the staked tokens are returned to them. In order to lock in the Hicky token in the date deposit, Alice and Bob's tokens will remain in their wallets and are simply flagged in the blockchain.

Let's say, however, that Bob is a no-show on the date. Maybe he forgot. Maybe he decided to spend time with his friends that night instead. If Bob notifies Alice beforehand, Alice has the chance to change her plans and all is well. But let's imagine Bob simply didn't bother to tell Alice he wasn't coming, leaving Alice sitting in the cafe, all dressed up, feeling rather foolish. Rather than only feeling foolish, Alice has the opportunity to open a conflict via DAD.

Conflict Management

Assuming Alice chooses to report Bob as a no-show on the date and, assuming he doesn't dispute this, Bob's staked tokens are forfeited to Alice. Perhaps only a minor victory for Alice, but better than nothing. If Bob however decides to dispute the claim, the case would go to a jury of their peers. This "Conflict Jury" would automatically be notified that Bob wasn't in the vicinity of the decided date location at the arranged time. To support her case, Alice might choose to upload a time-stamped photo of herself looking sad, sitting in the cafe, waiting for Bob half an hour after they were supposed to meet. She could also upload a screenshot of their chat in which Bob didn't reply to her messages. The jury might decide this is sufficient evidence in support of Alice, confiscating Bob's tokens as payment for their adjudication.

Incentive Structures

This system not only incentivizes good behavior through the underlying token economy, it also encourages the building of a community that has the potential to grow beyond its original intent as a dating platform.

In the real-world, people do not always make "perfect" economic decisions. On the contrary, humans are not always rational. We are highly emotional creatures, susceptible to factors as seemingly benign as blood sugar levels and whether or not we had a bad day at work.

Hicky endeavors to build a platform that in addition to economic incentives, also leverages proven social mechanisms from the real world to be embedded in the digital environment.

To illustrate this, let's say Alice and Bob do not meet up because Alice wants to get to know Bob a bit better before going on a physical date with him. Maybe Bob gets agitated and starts insulting Alice through inappropriate messages. Alice may now decide to report Bob to a jury of peers, hoping to save both her and others from her bad experience. Both Alice and Bob will have the opportunity to present their side of the story in front of the DAD. Using a collective consensus DAD will create the best possible solution. It may turn out that through this process, Bob realizes he was being rude and apologizes to Alice. This could even be the catalyst for the beginning of a lasting relationship.

While having economic incentives in place encouraging good behavior, the fundamentally human system of dealing with undesirable conduct which is facilitated through DAD, ends up strengthening the community. The Hicky network builds on the conflict resolution mechanism and the corresponding incentive structures.

6. A Token Utility Network (Hicky token)

The implementation of a token economy is necessary to create a system in which the user is no longer the product. It may initially seem that paying for simple functions like sending messages present an insurmountable hurdle. Especially when participants are used to getting such services "for free." However, this is precisely the mechanism which allows the alignment of incentives between the platform and its users. It enables economic incentives, optimising social dynamics that are fueled by the engagement of its participants.

The currency of the Hicky economy is the Hicky token (HKY). All interactions within the platform require HKY in some way. Participants in the network are always either earning or spending HKY when they engage.

Earning Hicky Tokens

Users can earn HKY in a variety of ways. To jumpstart the economy, users initially earn HKY by going through the verification process. Mainly HKY is earned by participating in the conflict moderation process. This process has been illustrated in the „The Date" section above, explaining the interaction and the underlying economics.

Spending Hicky Tokens

In order to eliminate spamming, as well as to reduce the tendency for popular users to be overwhelmed with messages, it is necessary to require a small fee for messaging. Sending and receiving messages therefore requires HKY.

Purchasing Hicky

HKY will be initially purchasable through either the private or the public token sale. This is outlined in the following section.

7. Token Distribution

In order to fund the development of the platform and distribute tokens, Hicky will be holding a token sale that is organized around smart contracts running on the Ethereum blockchain.

The contribution period will begin on Valentine's Day (14th of February 2018). Detailed instructions on how contributors can participate will be made available closer to the date of the event. Participants will send either Ether, Bitcoin or Litecoin to the designated address and receive HKY at a rate of 7.500 HKY per ETH. The gathered funds will be sent to a multisig address that is controlled by Hicky. HKY received by contributors will be transferable 7 days after the end of the contribution period.

Fair and Wide Distribution

In order to ensure a fair and wide distribution we are making it more difficult for larger participants to know how much to contribute in order to control the supply.

Therefore, the HKY creation rate is fixed at 7.500 HKY per ETH and will remain so for the duration of the contribution period.

Summary

Start date:	10:00 AM (CET) on February 14, 2018
Payment methods:	ETH, BTC, LTC
Soft cap:	3.000 ETH
Hard cap:	36.000 ETH
Token exchange rate:	7.500 HKY per ETH
Total token supply (max):	481.500.000

Pre Sale

Bonus:	Up to 30%
Minimum investment:	3 ETH
Private Sale start:	10:00 AM (CET) on January 14, 2018

Token Exchanges

We neither encourage or discourage exchange trading of our tokens. We do understand our customers are pioneers, and they don't know how much capacity they need. Therefore they need a channel to acquire or dispose of HKYs post after the ICO.

We have received inquiries from customers about a secondary market for them to solve this problem. And we have already received inquiries and due diligence questions from exchanges, which of course we are addressing.

We are not giving dates and exact exchanges. By virtue of identifying exact exchange, it would violate the token listing agreement contracts and could jeopardize our listing application with them. Exchanges are now mindful of teams leaking the listing news and markets front running listings.

Notice

1. No token creation, minting or mining after the end of the ICO period.
   All unsold tokens will be burned.

2. Tokens will be transferable 7 days after the ICO is completed.

3. If the soft cap is not reached, funds will be returned to the participants.

4. Upon reaching the hard cap, the ICO will end immediately.

HKY Token Allocation

60% of HKY   created during the contribution period will be allocated to the public contributors who send ETH, BTC, LTC to the smart contract address.

20% of HKY   created during the contribution period will be allocated to Hicky core developers and the team, locked in a smart contract with a 12 month vesting period.

10% of HKY   will be used for platform operations and updates.

5% of HKY   are reserved for advisors and are subject to a 12 month vesting period, locked in a smart contract.

5% of HKY   will be used for marketing expenses.
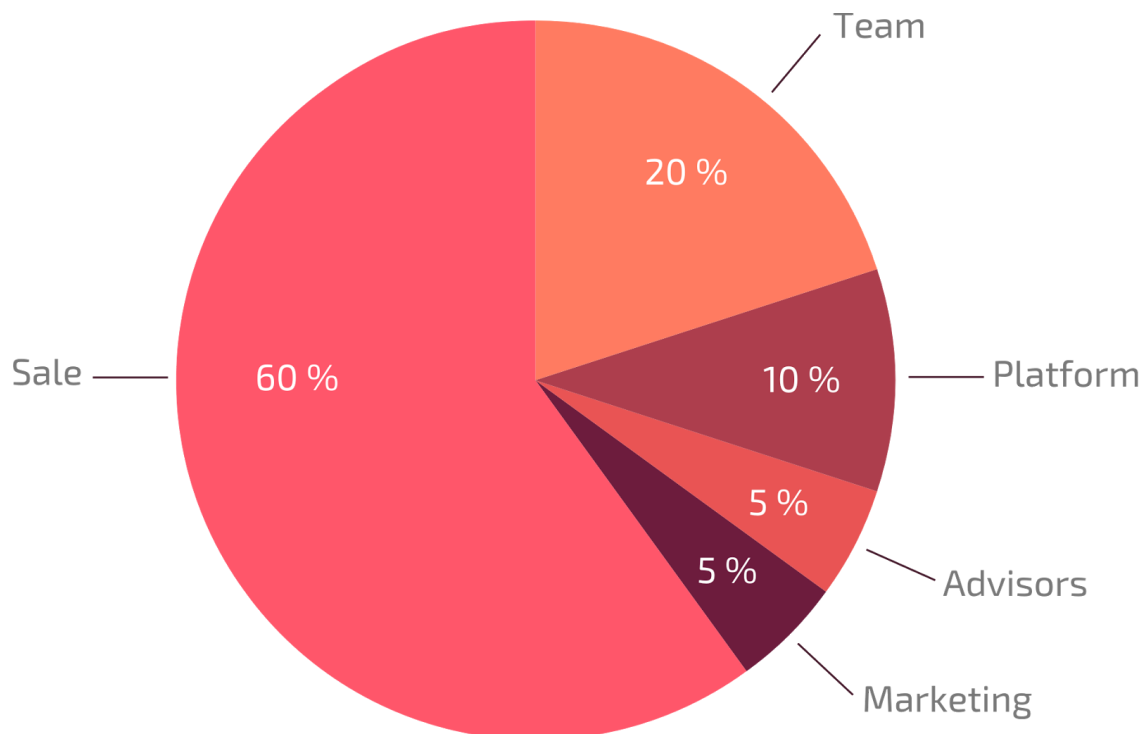
How to buy HKY

Our own signup process allows user to participate within the Pre Sale with ETH, BTC, LTC. Every token buyer will receive a personal address (for each cryptocurrency) after signup and email confirmation. Buyers shouldn't send tokens from their exchange wallets.

In order to receive the HKY tokens and make them visible in your wallet, we require you to specify your address from an ERC20 compliant wallet. Do **NOT** enter your address from your exchange wallet.

We recommend the use/ creation of one of the following wallets:

MyEtherWallet	Mist	Parity
myetherwallet.com	github.com/ethereum/ mist/releases	parity.io

Step by Step Guide

Step One: Register on our website

1. Go to http://hicky.io/
2. Provide your email, set a password and agree to our Terms & Conditions.
3. Verify your email and password and login

Step Two: Select the cryptocurrency you want to participate with

1. Choose the currency (ETH, BTC, LTC) you want to send in order to purchase HKY.
2. Choose the amount you want to participate.
3. We will present you with your personal address to send tokens (if you choose BTC, we will show you your personal BTC address. If you choose ETH, we will display you your personal ETH address etc.)
4. After you have sent the tokens, check your transaction and let us know if you have any questions.
5. Enter the address of your ERC20 compatible wallet in order to get your tokens distributed within 7 days after the token sale.

Notice

In order to ensure a smooth experience with the purchase of HKY, you should:

1. Read our whitepaper carefully (this is a draft and subject to community review)

   a. This is where we inform you about all details regarding Hicky.

   b. Here you can learn about the functionality and purpose of the Hicky token.

2. Subscribe to our newsletter

   a. Nothing worse than missing important updates and notifications.
      Our newsletter will keep you up to date.

3. Join our communication channels

   a. Stay in the know and ask the community questions through our channels

   Telegram ([Link](#))   Medium ([Link](#))

   Facebook ([Link](#))   Twitter ([Link](#))

8. Smart Contracts & Security

We used OpenZepplin audited Smart Contracts to ensure a fair and transparent HKY distribution. Cold storage is used to keep funds safe and secure.

For full details, see our GitHub repository (read the *readme.md* first!):
https://github.com/HickyToken/hickycontracts

```
HKY Coin

01.    pragma solidity ^0.4.18;
02.
03.    import "zeppelin-solidity/contracts/crowdsale/CappedCrowdsale.sol";
04.    import "zeppelin-solidity/contracts/token/MintableToken.sol";
05.
06.
07.    contract SampleCrowdsaleToken is MintableToken {
08.      string public constant name = "Hicky Dapp Token";
09.      string public constant symbol = "HKY";
10.      uint8 public constant decimals = 18;
11.    }
12.
13.
14.    contract SampleCrowdsale is CappedCrowdsale {
15.
16.      function SampleCrowdsale(uint256 _startTime, uint256 _endTime, uint256
       _rate, address _wallet) public
17.        CappedCrowdsale(36000 ether)
18.        Crowdsale(_startTime, _endTime, _rate, _wallet)
19.      {
20.      }
21.
22.      function createTokenContract() internal returns (MintableToken) {
23.        return new SampleCrowdsaleToken();
24.      }
```

9. Roadmap

2017 Q1 — **Founding of Hicky**

The main problems in online dating stem from a general misalignment of incentives between platform owners and users, leading to a lack of authenticity in the user base as well as the lack of security and privacy inherent to centralised systems. With backgrounds in blockchain and online dating, the four core members decide to spec out a solution based on the architectural possibilities of the Ethereum blockchain. Hicky is born.

2017 Q2 — **Team Building**

As they say, an idea is with nothing, it's all about the execution. Three more team members join the project each bringing in expertise from a variety of fields including product development, software development, blockchain architecture, design and marketing to build an MVP, collect user feedback and test the waters.

2017 Q3 — **Development and Testing**

The team completes an Alpha version of the Hicky application and opens it to close friends and business associates to gather initial feedback. The Alpha includes the following features: encrypted messaging, encrypted data storage and identity verification via face scan technology.

2017 Q4 — **Hicky Token Sale**

The conceptualisation of the underlying token economy for the Hicky network is finalised and the smart contract for the Hicky token (HKY) sale is developed. The cofounders from Blockmason.io (Michael and Tim) joins as advisors with experience in crypto finance and token architecture respectively.

2018 Q1 — **Token Sale and Beta Launch**

The token sale event will start with a private sale on the 14. January and the public sale will start on Valentine's Day, 14. February. Furthermore the beta version of the Hicky Decentralised Application (DApp) will be released by the end of Q1. The team will be expanded in order to cater to the different projects.

2018 Q2 — **Hicky DApp Launch**

Hicky will launch its DApp for both the iOS and Android platforms. We will initially launch the DApp in english, making it available to users in the European market. We will be focusing on building a strong brand within Europe before expanding to further countries.

2018 Q3 — **Country Expansion**

From our European base we will be making Hicky available in countries beyond Europe, mainly Asia, as the adoption of dating apps is already strong in many of the countries. We will onboard more further team members to cater for the expansion and also provide valuable insights into the market specifics.

2018 Q4 — **Partnerships & Monetisation**

The idea behind Hicky is to create a fair, secure and trustworthy network. As the ecosystem expands and increasingly more DApps are being developed, the strength of the network depends its the interconnectivity. We will be focusing on forming strong relations with our partners. Furthermore, our monetization concepts will be implemented.

10. Team

Our team has extensive experience in both the traditional online dating business as well as in blockchain technology. We also have a track record of successful startups under our belt.

Julian Fuchs
(Business Strategy)

in LinkedIn

Julian is a tech entrepreneur. He is focusing on building efficient structure within the Hicky project.
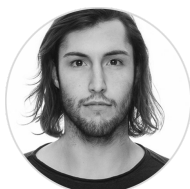
Patrick Schwetlick
(Product Development)

in LinkedIn

Patrick is an internet entrepreneur. He brings his knowledge of online dating to the product development.

Lisa Lamina
(Community Manager)

in LinkedIn

Lisa is a German product designer. She is focusing on building the Hicky community.

Kian Schreiber
(Blockchain Strategy)

in LinkedIn

Kian is an Internet entrepreneur and blockchain strategist. He is focusing on the token economics.

Dusia Lewandowska
(DApp & Testing)

in LinkedIn

Dusia is a social media expert. She is deeply involved in the product development.

Christian Gorgas
(Smart Contracts & Product)

in LinkedIn

Christian is a product focused blockchain expert. He is focusing on the token architecture.

Björn Barthel
(Growth Hacking)

in LinkedIn

Björn is an internet entrepreneur who is focusing on building strategic partnerships for Hicky.

Graham Stone
(Web Content)

in LinkedIn

Graham is a digital nomad and writer. He is responsible for the narrative behind Hicky.

Eric Reinhardt
(Technology & Design)

Instagram GitHub

Eric is a front end developer and UI/UX designer, responsible for the look & feel of the Hicky platform.

Danny Endert
(Technology)

in LinkedIn

Danny is a hardcore coder leading the development of the Hicky platform.

Samed Sulanc
(Technology)

GitHub

Samed is a full-stack developer focusing on the smart contract architecture powering Hicky.

11. Advisors

Hermione Way

in LinkedIn

Hermione is a former Tinder executive and marketing specialist

Michael Chin

in LinkedIn

Michael is a finance expert and co-founder of Blockmason

Timothy Galebach

in LinkedIn

Timothy is a technical expert and co-founder of Blockmason

Yasin Sebastian Qureshi

in LinkedIn

Yasin is the Executive Director at The NAGA Group AG

Benjamin Bilski

in LinkedIn

Ben is the Executive Director at The NAGA Group AG

Wladimir Huber

in LinkedIn

Wladimir is the Managing Director at SwipeStox GmbH

Alexander Braune

in LinkedIn

Alexander is the Managing Director at SwipeStox GmbH

don't settle
get picky.

HICKY

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