

ISRATO

A Decentralized Fundraising And Freelancing Network

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Whitepaper Revision 1.00 - Draft For Community Review

October 1st, 2017

Abstract

We present the design of a new decentralized fundraising and freelancing network, called IsraTo, where participants don't need to trust each other or third parties to raise funds or get paid for delivering services. We introduce a new token, called IRT, and we present its role, technical properties and functions within the network. We also present the IsraTo platform and its inherent components. The IsraTo network relies on the Ethereum blockchain and uses smart contracts to process transactions between participants. The IsraTo platform should give comparable performance to centralized fundraising and freelancing platforms while enabling more security and reliability.

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INTRODUCTION

Money and work directly affect how we behave and govern our lives. The Internet has put access to information in the hands of more and more people, but this is still not enough. Governments, businesses and centralized financial institutions are often failing to provide the access to the quality of life, security and freedom of work that they were created for.

Less than one year ago, many people had not even heard about cryptocurrencies. This space was generally limited to a crowd of developers and early adopters. Recently, thanks to a number of smart entrepreneurs [1], the media, and a growing international community, things are beginning to change. Bitcoin [2], blockchain technology, and decentralization have become topics of mainstream conversation.

Decentralization of services and industries is becoming a clear necessity to limit the supremacy of governments, whilst also mitigating the growing threat and number of hacking attempts on centralized systems. Hackers are everywhere. They are hidden in the darkness, patiently waiting for any single point of failure to strike your computer, steal your money, or get access to your data. Hopefully, decentralization will help people create a better world, where humanity has fair equal access to money, online security, quality of life and freedom of work.

This paper:

- (a) Introduces two markets: the Blockchain Fundraising Market and the Freelancing Market
- (b) Formalizes the IsraTo Decentralized Network (TDN) and its participants.
- (c) Presents the IRT Token and its function.
- (d) Introduces the IsraTo Platform, its components, and its features.

Note: IsraTo is still a work in progress. Active research is under way and new versions of this paper will be available at <https://www.IsraTo.org> comments and suggestions, please feel free to contact us at contact@IsraTo.org.

OVERVIEW

Blockchain networks have attracted a substantial amount of interest from engineers, investors, as well as entrepreneurs and freelancers. More than \$2 billion has been invested in blockchain startups over the past few years.

Ethereum, Stratis, NEO, Filecoin [3], and others are leading the decentralized revolution that is coming. Token-based crowdfunding, known as Token Sales or Initial Coin Offerings (ICO) is also playing a major role in this revolution. ICOs enable tech startups to raise many millions of dollars in a matter of minutes. With such rapid infusion of capital, infrastructure for blockchains is becoming quickly deployed, and is emerging as publicly available infrastructure for building decentralized services and applications. This decentralization will have a significant impact on the online job industry, freelancers, self-employed professionals and workers who rely on the Internet as their primary source of income.

The Gig Economy

Whether you're an expert, a full-time journalist, designer or translator, there's never been a better time to find freelance work. Businesses of all-sizes and in all industries are in need of quality freelancers [4]. Three factors are going to accelerate the gig economy in the near future:

- Culture: the stigma surrounding remote work is gone
- Demand: companies are more open to using freelancers than ever before
- Technology: the rise of blockchain freelancers and decentralized services

Decentralization is everywhere. There is a decentralized Facebook called Diaspora [5], and a decentralized Twitter called Twister. BitTorrent is a decentralized file sharing system, Aether is a decentralized discussion forum [6], and there is of course our beloved decentralized currency Bitcoin.

Introducing IsraTo

In this whitepaper, we present a fundraising and freelancing platform operating on a decentralized network (referred to as "The IsraTo Decentralized Network", or "The Network", or "TDN"). The Network runs on a blockchain with a protocol token called IRT, which backers use to fund projects submitted by project owners, and freelancers earn by providing work and services. IRT market liquidity is assured by proper market making from IsraTo (referred to as "IsraTo", or "The Company", or "We").

The Network is built on top of Ethereum [7], the most well-known and secure blockchain for smart contracts¹ and decentralized application development. The IsraTo platform (referred to as "The IsraTo Platform", or "The Platform") is a semi-decentralized application and user interface for the IsraTo ecosystem.

¹Smart contracts are computer programs that can be executed by a network of distributed but mutually distrusting nodes, without the need of an external trusted authority.

Before delving deeper into the IsraTo ecosystem, architecture and its components, it is important to better understand the internal functioning of the cryptocurrency market, the underlying motivations of its participants, and the inherent problems that must be addressed in this industry: scalability, liquidity and complexity.

THE CRYPTOCURRENCY MARKET

The cryptocurrency market consists of a number of actors whose interests are not always aligned, especially when it comes to trading new digital assets in cryptocurrency exchanges.

Main participants

- **Pumpers:** They accumulate large quantities of assets, pump the price at regular intervals to trigger a hype cycle, then dump on everyone and move on to the next altcoin (digital asset).
- **Holders:** They are mostly inexperienced investors, and tend to be the ones buying the hype and are left as *bagholders*² once the pumpers exit the markets.
- **Miners:** They validate and secure the transactions of the network. Due to the astronomical computation power needed in the mining process, miners place continuous selling pressure on the markets to cover the increasing cost of electricity.
- **Developers:** Developers (especially the ones who launch ICOs) also place selling pressure on the markets. They tend to convert their tokens into fiat currencies to cover development costs.
- **Merchants:** Anyone who accepts cryptocurrencies for products or services. They are affected by price volatility but also participate to the global selling pressure when converting into fiat. They have little to zero knowledge of the underlying blockchain technologies.
- **Bounty Hunters:** They are blockchain specialists, freelancers, translators or community managers. They help developers bring new projects to life. Most of the time, bounty hunters get paid only if the project is successful. They generally convert their earnings to fiat as soon as they get paid.
- **Traders:** They tend to participate in any market that has decent *price action*³.
- **Market makers:** They connect buyers and sellers of an asset - hence making a market. A market maker will usually hold the asset and then find a seller, and assumes some of the risk of the asset devaluing. To compensate for that risk, market makers offer slightly different prices and make tiny profits on thousands of trades.
- **Exchanges:** They tend to cultivate relationships with the major players in the crypto space. Good exchanges also find market makers to fill their order books.

² An informal term used to describe an investor who is symbolically holding a “bag of stocks” that decreases in value over time until it is totally worthless.

³ Price Action Trading: <http://www.learntotradethemarket.com/price-action-trading-forex>

Lifecycle and market value of a cryptographic asset

Most tokens and altcoins are a poor long-term store of value. As stated previously, some participants are placing continuous selling pressure on the markets, while others are buying large quantities of supply to artificially pump the asset's price⁴, then dump it until it's worthless.

To survive this, projects that are issuing new altcoins (cryptographic assets) should find professional traders to make the market, and ensure sufficient trading volume and liquidity. Tokens and altcoins that have higher trading volume tend to attract more users into the market. These new users are extremely important to offset the selling pressure from the crypto-market participants.

Low liquidity in most cryptocurrency markets

Since the explosion of ICOs, the blockchain space is flooded with a constant stream of new tokens, but most of them fizzle out as a result of having little to no liquidity. Once all the hype on a new token dies down, most markets become illiquid.

Liquidity is when a market allows an asset to be quickly bought or sold without affecting the asset's price. Lower liquidity tends to result in more drastic price movements, whereas higher liquidity creates a less volatile market, and prices do not fluctuate as significantly when large orders are placed.

For instance, the US Dollar is one of the most liquid assets. If a transaction of \$1 million takes place, the market is able to absorb that transaction without the value of the dollar drastically changing. However, the same transaction in Bitcoin (or any other crypto-asset) would have a greater effect on the asset's value.

The liquidity problem of newly listed cryptocurrencies and tokens can be mitigated (or even avoided) with a professional market making strategy [8] to keep the order books healthy:

- Pumpers won't be able to easily manipulate the markets.
- Merchants will actually consider accepting the asset.
- Traders will be able to effectively execute orders in a correct timeframe.
- Exchanges will keep the asset listed and new exchanges may add it.
- Holders will be happy to see that their investment is retaining a certain value over time.

Anarchy of payment methods for blockchain freelancers

The lack of market liquidity also affects blockchain freelancers as they are usually paid in tokens, and only if the project raises sufficient funds via a successful ICO. Freelancers on specialized websites like BitcoinTalk have to deal with multiple projects, multiple cryptocurrencies and multiple wallets. They may end up working for nothing if a project fails, or if a token is not listed on a major cryptocurrency exchange. In this document, we present a normalized payment method for blockchain freelancers ("Freelancers"), and a solution to ensure a minimum market liquidity of the IRT token at cold start.

⁴ Pump And Dump: <https://www.cryptocoinsnews.com/pump-dump-know-signs-trading-altcoins/>

Unreliability of centralized trading platforms

The cryptocurrency market is still dominated by centralized exchanges, like Kraken or Coinbase. These exchanges are easy to access, easy to use and help facilitate transactions from fiat to cryptocurrencies and tokens. However, one of the major issues with centralized exchanges is that they have been totally unprepared for the recent influx of users, causing major system failures and attracting a legion of crypto-hackers. While some centralized exchanges are more secure than others, there is still a number of security issues and many have failed to adequately secure their customers' funds, like last year's Bitfinex hack [9], which resulted in thousands of users losing their savings.

Defrauding of ICO investors

As if the risks over buying crypto-tokens wasn't high enough, a recent ICO mania⁵ has given rise to some blatant rip-offs in which scammers take investors' money, lure them with incredible stories of novel technologies, then fail to deliver the promised application.

In this paper, we present solutions to lower the risks of blockchain fundraising scam through various mechanisms:

- Curation of user generated content
- Verification of users
- Escrow of funds
- Increase of fundraising limits upon completion of project milestones
- Internal scoring of participants, reputation and rating mechanisms

⁵ <http://fortune.com/2017/08/29/sec-blockchain-ico-scam/>

THE ISRATO ECOSYSTEM

The main goal of IsraTo (“The Company”) is to help people bring innovative projects to life, raise funds to develop these projects, and hire Freelancers to deliver related work and services. In this section, we present the IsraTo ecosystem and the IRT token.

Definitions

The IsraTo ecosystem consists of The IsraTo Decentralized Network (“TDN”), which is a decentralized network of participants, and the IsraTo Platform, which is semi-decentralized and available on IsraTo.org and its subdomains.

The IsraTo Platform

To avoid any confusion, IsraTo.org (“The Platform”) can be seen as an online user interface like MyEtherWallet.com, but with specific features designed for user management, project management, fundraising and freelancing. For now, The Platform is closed-source and managed by IsraTo (The Company). In the future, The Platform may be fully-decentralized and released as an open-source project.

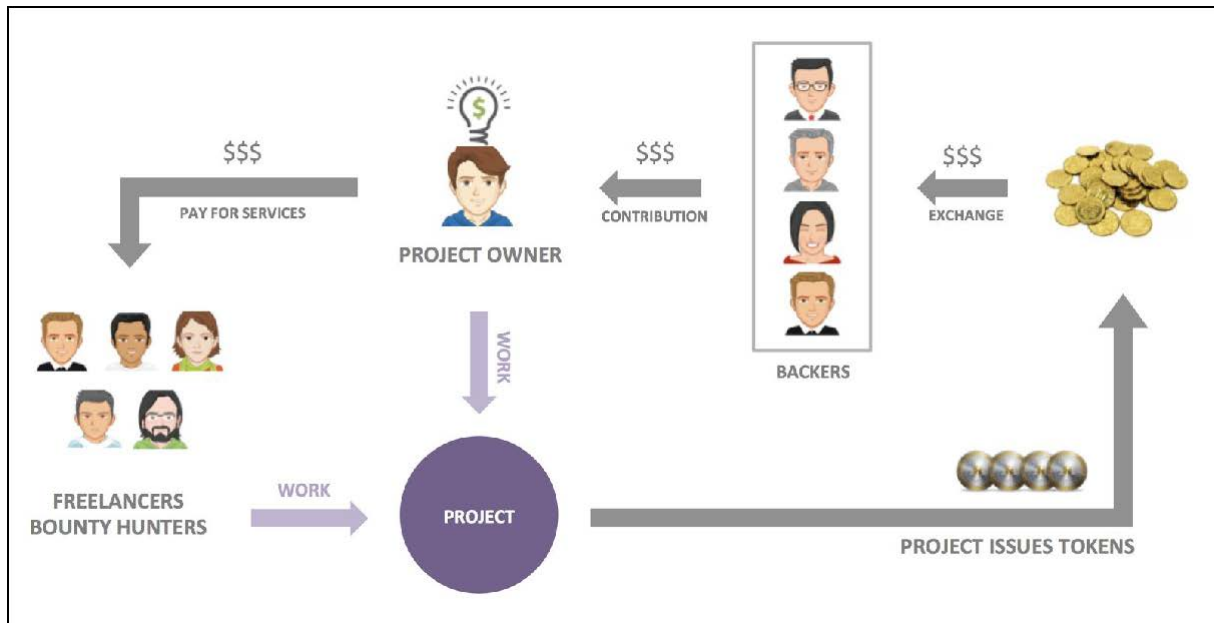
The IsraTo Decentralized Network

The IsraTo Decentralized Network is an abstraction layer built on top of the Ethereum blockchain. It’s a network of distributed smart contracts operating user wallets and custom features related to the IsraTo ecosystem. Smart contracts and other developments related to TDN will be released as open-source. Transactions made on TDN are secure, auditable and publicly verifiable on the Ethereum blockchain.

Participants of The Network

Any IRT holder can use The IsraTo Platform and participate in the IsraTo Decentralized Network, which consists of Project Owners, Backers, Freelancers and Curators:

- **Project Owners** submit projects to The Network.
- **Backers** use IRT to purchase new assets issued by specific projects they want to support.
- **Freelancers** offer services and workforce, and get paid in IRT.
- **Curators** can be hired to review, audit and rate user generated content, they get paid in IRT.



Role of the IRT Token

The standard economic explanation for the origin of money [10]⁶ is that it grew out of the inconveniences of barter, namely the lack of *double coincidence of wants*, and the lack of divisibility of commodities. Money always gives any economy a more flexible approach to trade than barter.

IRT solves the problem of the *double coincidence of wants* in the ICO fundraising market (which may be assimilated to a token barter market), and formalize a normalized payment method for participants of the IsraTo Decentralized Network.

Economics of the IRT Token

The IRT token is an atomic unit of value exchange inside The Network, resulting in the creation of a transactional economy between buyers, sellers and other participants. IRT allows users to earn value and to spend it on services that are internal to the IsraTo Platform. Participants earn IRT by doing active work (real work and actions) or providing services to the Network (i.e. rating or curating data).

⁶ The double coincidence of wants problem is the situation where the supplier of good A wants good B and the supplier of good B wants good A. The difficulty in barter is to find two persons whose disposable possessions mutually suit each other's wants. There may be many people wanting, and many possessing those things wanted; but for a barter to happen, there must be a double coincidence, which is rare.

Technical design of the IRT Token

Technically, the IRT smart contract is a payment processor with a custom transaction engine. The IRT token implements the standard ERC20 specifications [11], and the ERC223 specifications [12]. Custom specifications will also be implemented for the internal functioning of The IsraTo Platform and the IsraTo Decentralized Network. This is key for processing end-to-end payments, enabling frictionless and free transactions inside the IsraTo Decentralized Network, and providing participants with other custom features tied to The IsraTo ecosystem.

Integration of the IRT Token

IRT token is backward compatible with any ERC20 wallet, and the integration process should be easy for third party exchange platforms like Kraken or Poloniex.

Limitations of the IRT Token

The IRT Token is not a native token like ETH, so it's tied to (1) the inherent performances and limitations of all other ERC20 tokens, and (2) to the inherent limitations of the Ethereum blockchain.

Currently, the Ethereum blockchain clearly doesn't scale⁷. By design, it needs to reach a global consensus to validate all transfers, and each participant must be updated of all changes to the state of the network. Hardware and bandwidth constraints set a limit on the number of transactions per second that can be handled by the blockchain.

To bypass these limitations, the basic idea is to avoid the blockchain consensus bottleneck. Therefore, we are actively following research advances from blockchain actors like Raiden Network [13] and TrueBit [14]:

- The Raiden Network is an off-chain solution leveraging a network of payment channels, which allow to securely transfer value off-chain (without involving the blockchain for every transfer).
- TrueBit bypasses the consensus bottleneck and brings scalable computation to Ethereum. It enables trustless smart contracts to securely perform any computation task. TrueBit also vastly reduces the number of redundant computations used in traditional Ethereum smart contracts, and outsources most computation work to a handful of entities.

For now, some parts of the IsraTo Platform will be centralized. If The Platform gains significant traction, we may consider using these off-chain technologies to enable fully-decentralized, instant, low-fee and scalable IRT transactions between participants of The Network. We may also consider developing a custom blockchain with a native cryptographic token, specially designed for the needs of IsraTo.

⁷The Ethereum blockchain only supports roughly 15 transactions per second.
<https://www.coindesk.com/information/will-ethereum-scale/>

NETWORK ARCHITECTURE

Demand and Supply

Demand and supply of funds and workforce meet at the two IsraTo markets: Fundraising Market and Freelancing Market.

Fundraising Market

Project Owners participate in the IsraTo ecosystem by submitting projects to the Network. In the Fundraising Market, Project Owners create crowdfunding rounds (campaigns) to raise funds at specific stages of development. In order to raise funds and generate new digital tokens, projects must be curated and rated by the community.

Disqualified or unrated projects are not authorized to raise funds through the Network. Eligible projects are listed and sent to a funding pipe. Backers can then consult the funding pipe to discover projects in which they want to inject funds.

Freelancing Market

In the Freelancing Market, Freelancers are paid to deliver specific work and services. IsraTo provide a way for Project Owners to consult Freelancer Gigs and initiate deals. Through an escrow mechanism, the IsraTo Network guarantees that Freelancers are paid when the service has been successfully provided, and that Project Owners are refunded if Freelancers failed to deliver the promised service.

NETWORK PARTICIPANTS

A participant (or user) is a registered user on the IsraTo Platform. Participants can play different roles depending of their activity in The Network. In this document, they are referred to as “Project Owners”, “Backers”, “Freelancers” and “Curators”.

- **Project Owners** submit projects to The Network
- **Backers** fund specific projects they want to support
- **Freelancers** submit gigs and offer services and workforce
- **Curators** validate, review and rate user generated content (projects, campaign, gigs etc.)

Project Owners

Project Owners may submit all kind of projects to The Network. A project may be anything from the incubation of a new idea to an existing incorporated business. Each IsraTo project is associated with a new unique token.

Freelancers

In the IsraTo Platform, Freelancers provide workforce and human resources to The Network. Freelancers participate in the IsraTo ecosystem by offering services and expertise. To become Freelancers, participants must submit a Gig with a detailed description of the service they want to provide. If Freelancers fail to deliver the promised service, they are penalized with a bad rating, which may impact their reputation and internal scoring (see the section “Network Quality Control”).

Alliances

Most recognized and/or highly rated Freelancers are also eligible to syndicate other Freelancers by creating alliances (workforce groups). In doing so they receive rewards and commissions on all the transactions generated by the participants of the alliances they manage.

Backers

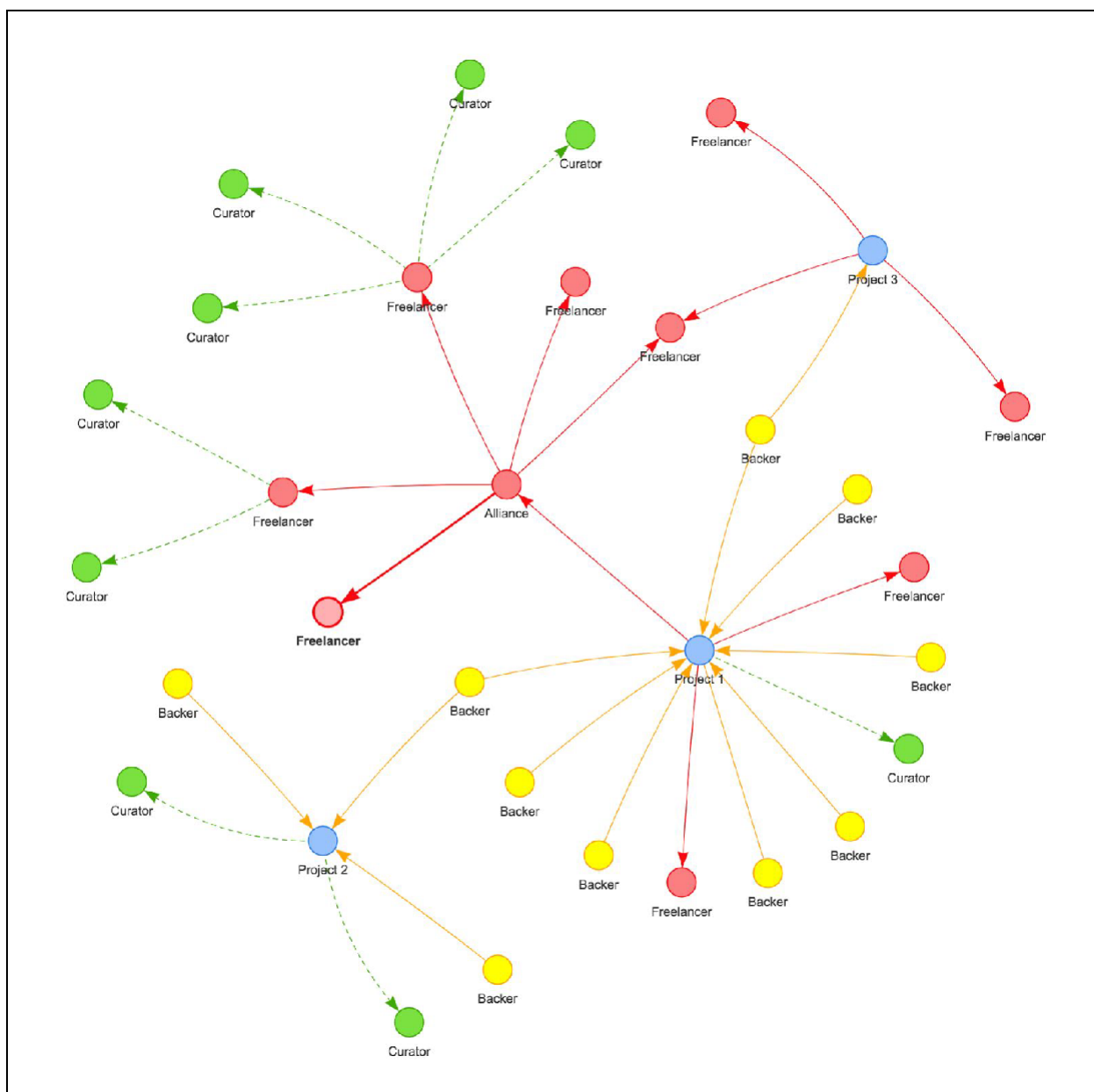
Backers provide funds to the Network. Backers participate in IsraTo by supporting projects in exchange for new tokens issued by these projects. Generally speaking, Backers and Freelancers are both Contributors to the Network. Backers contribute with money (they spend IRT), and Freelancers contribute with time and work, and get paid in IRT.

Curators

Any participant can register to the Curator Program. Curators can be hired by Project Owners, Backers or Freelancers to review, audit and rate new projects, campaigns, or freelancer gigs. Each time they are mandated to rate, audit or review user generated content, they get paid with IRT tokens.

Example: Bob is a Project Owner who submitted an inspiring project on the IsraTo Platform. He wants to raise money and get fair reviews and ratings to reassure Backers. To this end, Bob decides to mandate Alice to audit and rate the project. Alice is a reputable Curator, she conducts a minimum background check on the project's team (LinkedIn and Facebook activity etc.). She also checks documents found on the Internet. After a few hours, Alice delivers a fair audit report, and she rates the project 4.5 / 5.

Of course, Curators may be corrupted by the mandator, but this problem is limited. On the project's page, people should see the different reviews and ratings of all Curators, and the average rating (from 0 to 5 stars). The higher the number of Curators, the more trust people can put in the project. Curators also have a strong interest to behave honestly and deliver fair audits and reviews. If they fail to be fair and honest, they will lose followers, credibility, reputation and their internal scoring will be impacted (see the "Network Quality Control" section below for more details).



NETWORK COMPONENTS

Profile Page

Upon registration, each participant is prompted to setup a user profile. Profile Pages are public pages on the IsraTo Platform, and expose generic information about the participant:

- Public name of the participant
- Profile picture and background picture
- List of projects, campaigns and gigs
- List of followers and who they are following
- List of posts (see newsfeed below)

Newsfeed

Participants can write posts to keep the community updated with fresh information and relevant content. Posts are displayed on participants' Profile Pages, and broadcast to their followers.

Followers and Notifications

Any participant can follow other participants to get notified of their new posts and activity on the IsraTo Platform. When participants write posts, their followers are notified (1) in real-time with Web Notifications, and (2) with daily email digests. Participants can un-follow someone at any time to stop receiving notifications from this person.

User Wallet

Participants should be able to create a wallet on the IsraTo Platform. The wallet is compatible with ETH, IRT tokens and other ERC20 tokens. No private keys are hosted on the IsraTo Platform. Participants are responsible for the security of their private keys.

In the future IsraTo plans to be able to host private keys of participants who want to do so.

Gig

Any participant can register a Gig on the IsraTo Platform. Gigs are services that Freelancers are selling on the IsraTo Platform. To create a Gig, Freelancers must provide:

- Name of the gig (i.e. *"I can translate Russian into English"*, or *"I will design your logo"* etc.)
- A long description with relevant information so the community gets a clear understanding of the promised service
- Price of the service (i.e. 1,500IRT)
- Estimated Time Of Delivery (i.e. 24h, 48h, 76h etc.)

Project

To submit a project, Project Owners must provide:

- A tagline (one-line short description of the project)
- A long description with relevant information so the community gets a clear understanding of the project
- Name and symbol and supply of the new token they want to emit

Once a project is created, a token is automatically generated with the name, symbol and supply provided by the Project Owner. The token is not deployed to the Ethereum Blockchain and is non-transferable until further validation by the Project Owner and a rating by Curators of the Network. Project Owners can hire as many Curators as they want to audit, review and rate their projects (from 0 to 5 stars).

The average rating (from 0 to 5 stars) is displayed on the project's page.

Campaign

In the IsraTo Platform, a campaign is a crowdfunding process to fund a project at a specific stage of its development. A campaign has a start date and an end date. Project Owners can launch as many campaigns as needed for a specific project, but only one campaign can be running at the same time.

Fundraising limits increase when the previous campaign was successful and the Project Owner delivered the promised development and/or milestone.

- First Campaign (Seed Round): max. \$500,000 USD
- Round A: max. \$5,000,000 USD worth
- Round B: max. \$15,000,000 USD worth
- Further campaigns are unlimited (see Transaction Limits in the section below)

In order to raise funds through fundraising campaigns, Project Owners must be compliant with the KYC and AML specifications (see the "Network Quality Control" section below for more details).

Registration

To create a fundraising campaign, Project Owners must provide:

- Name of the campaign (i.e. "Seed Round", or "Series A Funding" etc.)
- Clear use of funds for this campaign (i.e. "Creation of a new *mobile app*")
- Fundraising Goal (i.e. 350,000 IRT)
- Minimum Cap (i.e. 80,000 IRT)
- Start date and End date
- Amount of token available for sale to Backers
- Sale price of the token (i.e. 1 IRT = 400 NTK, where NTK is a token issued by a project)

Escrow & Transferability of the token

During a campaign:

- Raised funds are hold in an escrow smart contract until the campaign ends.
- New tokens are minted in real time and credited to the Backer's balance.
- These new tokens are locked and are not transferable until the campaign ends.

Liquidity Contract

To ensure a minimum liquidity of these new tokens at cold start, a portion of the funds raised will be locked in a liquidity contract, and available to buy back these new tokens at a fixed price.

Release of Funds

The raised funds are released to the Project Owner's wallet only if the campaign was successful.

Refund

Project Owners can cancel a campaign at any time before the end date. Backers are refunded if a campaign failed to reach its minimum cap, or if it has been cancelled by the Project Owner.

User Dashboard

TDN Participants should get access to a User Dashboard to manage their projects, campaigns, gigs and other features of the IsraTo Platform. The User Dashboard allows:

- User Settings
- Profile Management
- Comments and Rating Management
- Notification Management
- Project Management
- Campaign Management
- Gig Management
- Follower Management

NETWORK QUALITY CONTROL

User Verification

To get verified, users must be compliant with the international KYC⁸ and AML⁹ specifications, and provide appropriate documents to IsraTo through the IsraTo Platform. Unverified users should have access to the platform but with reduced functionalities and transaction limits.

Network Reputation

Generally speaking, a reputation system measures how much a participant is trusted by a community [15]. It should be calculated on the participant's previous transactions and interactions with other participants.

On The Network, the greater the reputation of a participant, the more other users are willing to interact and transact with that participant, and the more she will have to behave honestly.

Internal Scoring

All TDN participants are rated with an internal scoring mechanism. This rating should be public and computed using of a number of factors like their network reputation, their number of followers, and the level of verification of their profile.

Transaction limits

- Unverified Project Owners are not eligible to raise funds through a fundraising campaign
- Unverified Backers are limited to \$2,000 USD investment per day
- Unverified Freelancers are limited to create \$500 USD gigs
- Unverified Freelancers cannot create Freelancing Alliances (workforce groups).
- Curators must be verified users.

⁸ Know Your Customer: https://en.wikipedia.org/wiki/Know_your_customer

⁹ Anti Money Laundering: <http://www.finra.org/industry/aml>

BUSINESS MODEL

The IsraTo Distributed Network (TDN) is a Nash-equilibrated¹⁰ system where each participant is incentivized to play by the rules:

- Freelancers earn money from Project Owners for delivering services.
- IsraTo, which is playing the role of facilitator and escrow, takes a cut of 10% on each transaction generated through the Freelancing Market.
- Highly rated and recognized Freelancers can create and manage Freelancing Alliances (workforce groups). They should be incentivized to do so by earning a commission on each transaction generated through these alliances.
- Backers earn new tokens issued by projects in which they have invested funds.
- Curators earn money for rating and auditing projects, campaigns and freelancer gigs.

IsraTo also charges a service fee for successfully matching fundraising campaigns and Backers. When a project raises funds through a successful fundraising round, the fee will vary from 2% to 7% depending on the value of the transaction and the fundraising round.

In the future, the IsraTo Platform should offer advertising services to participants of The Network. Project Owners should be able to promote their projects and tokens to other participants on the IsraTo Platform. In such a case, the advertising revenue should be split 50/50 between IsraTo and participants who displayed ads on their User Profiles.

¹⁰ In economics and Game Theory, the Nash equilibrium is a stable state of a system involving the interaction of different participants, in which no participant can gain by a unilateral change of strategy if the strategies of the others remain unchanged.

CONCLUSION

The way consumers use cryptocurrencies must be simplified. Let's leave aside the blockchain scalability problems and the fact that there is a growing number of cryptocurrencies, the crypto space is still really complicated to allow maximum user interactions. This means that overcoming market fragmentation, liquidity problems and complexity of blockchain softwares will prevent any mass adoption or mainstream usage of cryptocurrencies.

One approach to solving this complexity challenge is to lower the barriers of switching from one service to another. People should be able to easily log into their wallets, execute transactions, offer services to get paid, raise funds for their projects, and communicate with other users, without ever leaving the platform. Such a platform is what IsraTo is trying to build, and this document presented the first pillar of our vision: an easy to use, decentralized fundraising and freelancing platform, with a normalized protocol token used as an unit of value exchange.

FUTURE WORK

This paper presents a cohesive path toward the construction of the IsraTo Decentralized Network and the IsraTo Platform. This work is also a starting point for future research on decentralized fundraising, digital asset management and distributed workforce platforms. Our research work includes:

- A distributed escrow system through multiple user wallet
- A decentralized ICO fundraising agency model through multiple fund collectors
- A full featured IsraTo Public API for the fundraising and freelancing services
- An embeddable JavaScript widget suite for web developers
- An AI-based market making bot to ensure deep market liquidity of IRT

IsraTo is still a work in progress. Active research is under way and new versions of this paper will be available at <https://www.IsraTo.org>.

ACKNOWLEDGEMENTS

This paper is the cumulative work of multiple individuals within the IsraTo team, and would not have been possible without the help, comments, and review of our friends, family, collaborators and advisors.

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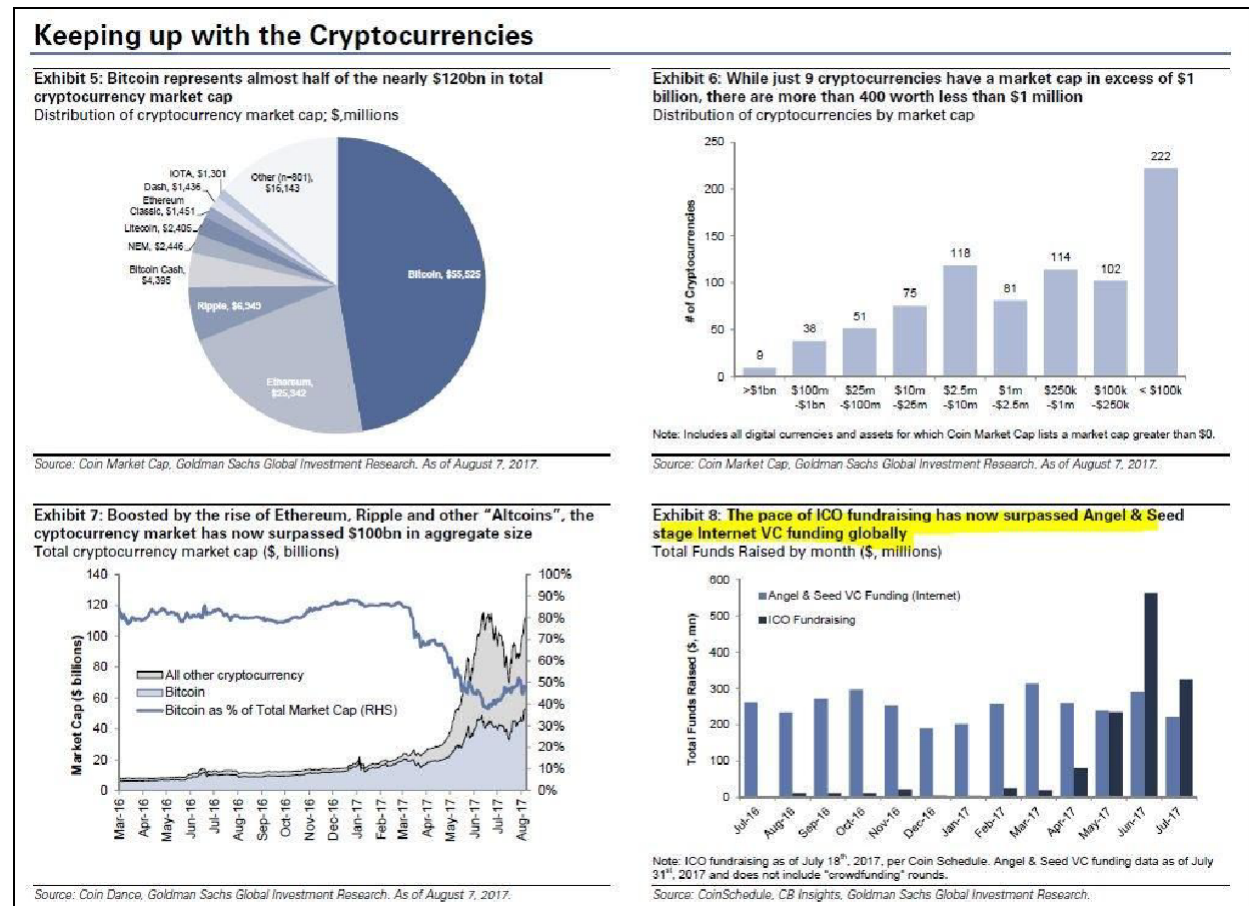
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APPENDICES

A1 - The Blockchain Fundraising Market

VC funding has always been the preferred method of raising funds, and it has always been the dominant force. Data reported by Coindesk shows that since 2012 venture capital has infused more than \$1.8 billion into blockchain start-ups. In 2016 the total amount raised by VC funding totaled just over \$600 million. As for ICO funding the total investment was about \$300 million, but that was last year.



For the first time in the technology history, blockchain entrepreneurs are now raising more money through Initial Coin Offerings (ICOs) than traditional venture capital investments. As of August 2017, VC funding has only reached about \$350 million and ICO funding has finally reached almost \$2 billion as reported by Forbes magazine. Out of that figure, this year's investment alone was more than \$1.5 billion just from ICO funding. There was also a huge jump over the past few months on the back of some very successful ICOs like Filecoin, Tezos, and EOS. Filecoin for example, managed to raise more than \$250 million in August within hours. In July alone more than \$540 million was poured into blockchain companies, but only \$6.12 million came from traditional VC firms. The rest was the result of ICO funding from individual investors.

A2 - The Freelancing Market

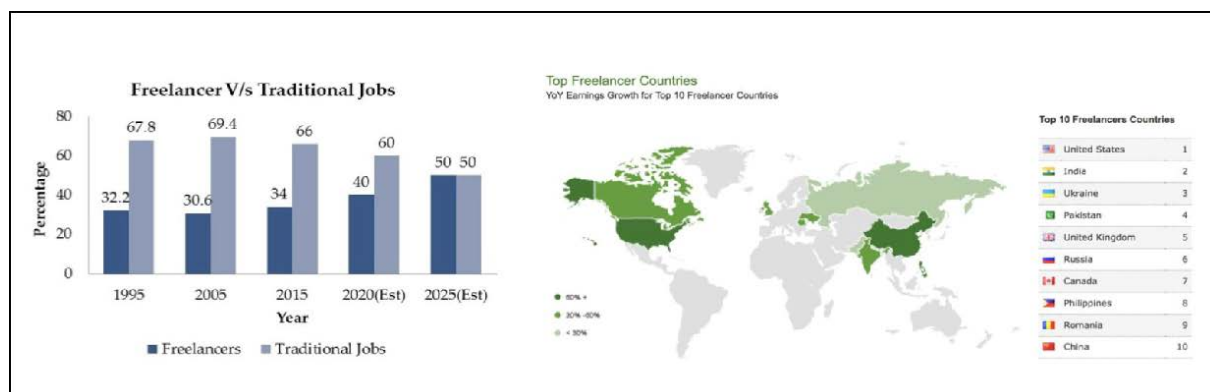
The gig economy is becoming increasingly normalized. With a massive influx of fresh talents and an accompanying increase in freelancers in the blockchain industry (aka Bounty Hunters), the overall market is due to become very competitive. “Earn money online” seems to be the tagline that has caught on with the younger generation.

Currently, 34% of the US workforce comprises of Freelancers. Nearly 70% of the current freelancers believe that technology has made it easier for them to discover work in their field. This is partly due to the increase in web and app development. The current number of freelancers is expected to grow by 50% by 2020. Freelance marketplaces like Upwork house various functions such as software development, content writing, marketing and design. Since these are the industry’s first trendsetters, these marketplaces got early-established brand recognition, and are capable of satisfying a huge range of client needs. These centralized marketplaces were not designed to handle the “blockchain revolution”, and they are not adapted to fulfill the needs of the increasing number of crypto-market customers and freelancers.

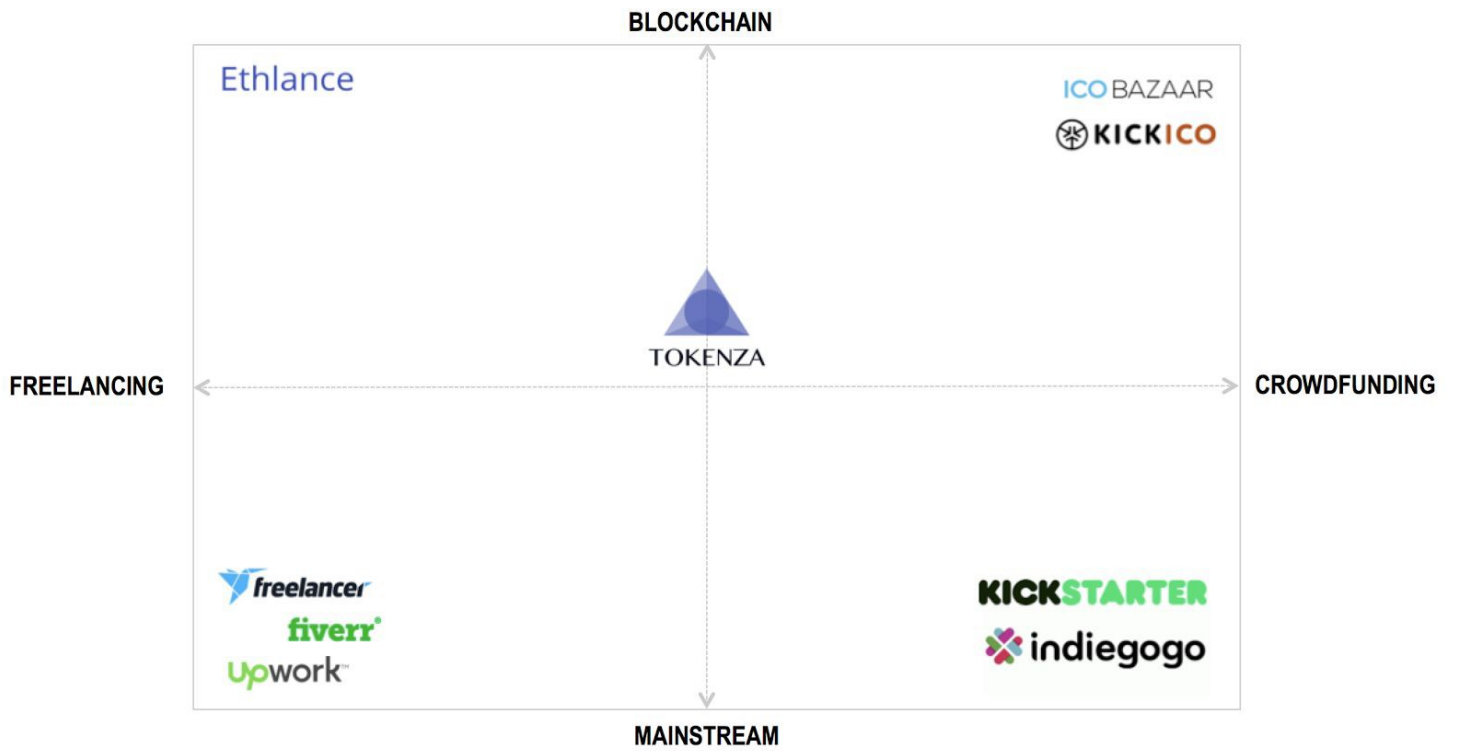
US	UK	Europe
53 million currently doing freelance work	1.4 million freelancers working across all sectors	8.9 million Freelancers currently
80% of non-freelancers are willing to work outside	78% of the general public believe in the concept of freelancing	45 % increase in freelancers ever since 2013
69% believe technology has helped their freelancing career	Average Hourly rate has increased by 6.7 %	13% rate of employment in Spain & Slovakia
65% have decided to choose Freelancing as a career option	Freelancing industries increased by 46%	Italy has 21% rate of Self-employment

* According to Freelancer’s Union, Elance & Future Working

- Freelancers contribute an estimated \$715 billion in freelance earnings to the US economy every year.
- Overall Freelancers have contributed \$21 billion to the UK economy.
- By 2020 more than 40% of the US workforce will become independent workers.
- Millennials are the biggest cohort of the workforce at about 44%



A3 - Positioning



A4 - Competitive Landscape

					CLASSIC ICO
Blockchain Tech	✓	✓			✓
Escrow Services	✓	✓	✓	✓	✓
Crowdfunding Services	✓	✓	✓		✓
Freelancing Services	✓			✓	
Alliances & Workgroups	✓				
Curators + Scoring	✓				
Social Network (followers + newsfeed)	✓				
Simplicity Of Use	✓	✓	✓	✓	
KYC & AML compliancy	✓	✓	✓		

LEGAL DISCLAIMER

Blockchain projects are an area of interest for many regulators around the globe, including those within the United States and Europe. Though we feel decentralization holds great promise, we must, and intend to, operate our business in accordance with the laws of relevant jurisdictions. As such, IsraTo may not be immediately available in certain jurisdictions.

IsraTo is selling its digital token (“IRT Token”) to buyers (“Buyers”) under the following terms:

IRT Tokens are functional utility tokens within the IsraTo platform. IRT Tokens are not securities. IRT Tokens are non-refundable. IRT Tokens are not for speculative investment. No promises of future performance or value are or will be made with respect to IRT Tokens, including no promise of inherent value, no promise of continuing payments, and no guarantee that IRT Tokens will hold any particular value. IRT Tokens are not participation in IsraTo (“The Company”) and IRT Tokens hold no rights in IsraTo. IRT Tokens are sold as a functional good. All proceeds received by IsraTo may be spent freely absent any conditions. IRT Tokens are intended for experts in dealing with cryptographic tokens and blockchain-based software systems.

Risks

IRT TOKENS MAY HAVE NO VALUE. BUYER MAY LOSE ALL AMOUNTS PAID. Buyer of IRT Tokens (“Buyer”) has carefully reviewed, acknowledges, understands and assumes the following risks, as well as all other risks associated with the IRT Tokens (including those not discussed herein), all of which could render the IRT Tokens worthless or of little value:

1. IsraTo Platform

IRT Tokens may have no uses, purpose, attributes, functionalities or features, express or implied. IRT Tokens may not entitle holders to participate on the IsraTo Platform, even if the IsraTo Platform is launched and the IsraTo Platform’s development is finished, adopted and/or implemented. Buyer should not purchase IRT Tokens in reliance on the IsraTo Platform because IRT Tokens may not be usable on the IsraTo Platform and do not entitle Buyer to anything with respect to the IsraTo Platform.

2. Purchase Price Risk

IsraTo reserves the right to change the price of the IRT Token for any reason. IsraTo reserves the right to change the duration of the IRT distribution period (“IRT Distribution Period”) for any reason, including, without limitation, bugs in the IRT distribution contract (“IRT Distribution Contract”) or the unavailability of the Website or other unforeseen procedural or security issues.

3. Blockchain Delay Risk

On the Ethereum blockchain, timing of block production is determined by proof of work so block production can occur at random times. For example, ETH contributed to the IRT Distribution Contract in the final seconds of a distribution period may not get included for that period. Buyer acknowledges and

understands that the Ethereum blockchain may not include the Buyer's transaction at the time Buyer expects and Buyer may not receive IRT Tokens the same day Buyer sends ETH.

4. Ethereum Blockchain

The Ethereum blockchain is prone to periodic congestion during which transactions can be delayed or lost. Individuals may also intentionally spam the Ethereum network in an attempt to gain an advantage in purchasing cryptographic tokens. Buyer acknowledges and understands that Ethereum block producers may not include Buyer's transaction when Buyer wants or Buyer's transaction may not be included at all.

5. Ability to Transact or Resell

Buyer may be unable to sell or otherwise transact in IRT Tokens at any time, or for the price Buyer paid. By using the IRT Distribution Contract or by purchasing IRT Tokens, Buyer acknowledges, understands and agrees that: (a) IRT Tokens may have no value; (b) there is no guarantee or representation of liquidity for the IRT Tokens; and (c) IsraTo and its subsidiaries are not and shall not be responsible for or liable for the market value of IRT Tokens, the transferability and/or liquidity of IRT Tokens and/or the availability of any market for IRT Tokens through third parties or otherwise.

6. Token Security

IRT Tokens may be subject to expropriation and or/theft. Hackers or other malicious groups or organizations may attempt to interfere with the IRT Distribution Contract or the IRT Tokens in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, because the Ethereum platform rests on open source software and IRT Tokens are based on open source software, there is the risk that Ethereum smart contracts may contain intentional or unintentional bugs or weaknesses which may negatively affect the IRT Tokens or result in the loss of Buyer's IRT Tokens, the loss of Buyer's ability to access or control Buyer's IRT Tokens or the loss of ETH in Buyer's account. In the event of such a software bug or weakness, there may be no remedy and holders of IRT Tokens are not guaranteed any remedy, refund or compensation.

7. Access to Private Keys

IRT Tokens purchased by Buyer may be held by Buyer in Buyer's digital wallet or vault, which requires a private key, or a combination of private keys, for access. Accordingly, loss of requisite private key(s) associated with Buyer's digital wallet or vault storing IRT Tokens will result in loss of such IRT Tokens, access to Buyer's IRT Token balance and/or any initial balances in blockchains created by third parties. Moreover, any third party that gains access to such private key(s), including by gaining access to login credentials of a hosted wallet or vault service Buyer uses, may be able to misappropriate Buyer's IRT Tokens. IsraTo is not responsible for any such losses.

8. IRT Tokens May Become Non-Transferable

Buyer acknowledges and understands that IRT Tokens may become non-transferrable at any time. Buyer may no longer be able to map a public key to Buyer's account and Buyer may not be able to

transfer IRT Tokens on the Ethereum blockchain. Cryptocurrency exchanges may also be unable to accept new deposits or authorize withdrawals of IRT Tokens.

9. New Technology

The IsraTo Platform and all of the matters set forth in the White Paper are new and untested. The IsraTo Platform might not be capable of completion, implementation or adoption. It is possible that no service will ever be launched and there may never be an operational IsraTo Platform. Buyer should not rely on the IsraTo Platform or the ability to receive tokens associated with the IsraTo Platform in the future. Even if the IsraTo Platform is completed, implemented and adopted, it might not function as intended, and any tokens associated with the IsraTo Platform may not have functionality that is desirable or valuable. Also, technology is changing rapidly, so the IRT Tokens and any tokens transferable on the IsraTo Platform may become outdated.

10. Reliance on Third-Parties

Even if completed, the IsraTo Platform will rely, in whole or partly, on third parties to adopt and implement it and to continue to develop, supply, and otherwise support it. There is no assurance or guarantee that those third parties will complete their work, properly carry out their obligations, or otherwise meet anyone's needs, all of this might have a material adverse effect on the IsraTo Platform.

11. Failure to Map a Public Key to Buyer's Account

Failure of Buyer to map a public key to Buyer's account may result in third parties being unable to recognize Buyer's IRT Token balance on the Ethereum blockchain.

12. Exchange & Counterparty Risks

If Buyer sends ETH to the IRT Distribution Contract from an exchange or an account that Buyer does not control, pursuant to the IRT Distribution Contract, IRT Tokens will be allocated to the account that has sent ETH; therefore, Buyer may never receive or be able to recover Buyer's IRT Tokens. Furthermore, if Buyer chooses to maintain or hold IRT Tokens through a cryptocurrency exchange or other third party, Buyer's IRT Tokens may be stolen or lost. In addition, third parties may not recognize Buyer's claim to any derivative tokens if and when launched by third parties according to the distribution rules set in the IsraTo Platform. By using the IRT Distribution Contract and/or by purchasing IRT Tokens, Buyer acknowledges and agrees that Buyer sends ETH to the IRT Distribution Contract through an exchange account and/or holds IRT Tokens on a cryptocurrency exchange or with another third party at Buyer's own and sole risk.

13. Changes to the IsraTo Platform

The IsraTo Platform is still under development and may undergo significant changes over time. Although IsraTo intends for the IsraTo Platform to have the features and specifications set forth in the White Paper, Company may make changes to such features and specifications for any number of reasons, and any party that adopts the IsraTo Platform and launches the IsraTo Platform also may make changes, any of which may mean that the IsraTo Platform does not meet Buyer's expectations.

14. Risk of Alternative Services based on IsraTo Platform

The IsraTo Platform could be licensed under an open source license at any time after the end of the IRT Distribution Period; If IsraTo Platform become licensed under an open source license, it is possible somebody may not respect the IsraTo Platform copyright or may modify the IsraTo Platform after it has been released under an open source license. Therefore, it is possible for someone to utilize the IsraTo Platform to build and launch blockchain protocols using a token distribution other than the one intended for the IRT Tokens pursuant to the IsraTo Platform both prior to or after the IsraTo Platform has become licensed as open source.

15. Project Completion

The development of the IsraTo Platform may be abandoned for a number of reasons, including, but not limited to, lack of interest from the public, lack of funding, lack of commercial success or prospects, or departure of key personnel.

16. Lack of Interest

Even if the IsraTo Platform is finished and adopted and the IRT Platform is launched, the ongoing success of the IsraTo Platform relies on the interest and participation of third parties like Freelancers and Project Owners. There can be no assurance or guarantee that there will be sufficient interest or participation in the IsraTo Platform.

17. Uncertain Regulatory Framework

The regulatory status of cryptographic tokens, digital assets and blockchain technology is unclear or unsettled in many jurisdictions. It is difficult to predict how or whether governmental authorities will regulate such technologies. It is likewise difficult to predict how or whether any governmental authority may make changes to existing laws, regulations and/or rules that will affect cryptographic tokens, digital assets, blockchain technology and its applications. Such changes could negatively impact the IsraTo Platform and/or IRT Tokens in various ways, including, for example, through a determination that IRT Tokens are regulated financial instruments that require registration. IsraTo may cease the distribution of IRT Tokens, the development of the IsraTo Platform or cease operations in a jurisdiction in the event that governmental actions make it unlawful or commercially undesirable to continue to do so.

18. Risk of Government Action

As noted above, the industry in which IsraTo operates is new, and may be subject to heightened oversight and scrutiny, including investigations or enforcement actions. There can be no assurance that governmental authorities will not examine the operations of IsraTo and/or pursue enforcement actions against IsraTo. Such governmental activities may or may not be the result of targeting IsraTo in particular. All of this may subject IsraTo to judgments, settlements, fines or penalties, or cause IsraTo to restructure its operations and activities or to cease offering certain products or services, all of which could harm IsraTo's reputation or lead to higher operational costs, which may in turn have a material adverse effect on the IRT Tokens and/or the development of the IsraTo Platform.

This communication shall not constitute an offer to sell or the solicitation of an offer to buy securities nor shall there be any sale of these securities in any state in which such solicitation or sale would be unlawful prior to registration or qualification of these securities under the laws of any such state.