About IDNI

With the help of machines, we can solve the knowledge and opinion scaling problem. No more forgotten or dismissed knowledge, and no more bottlenecks in the discovery and transfer of knowledge.

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Intelligent Decentralized Networks Initiatives (IDNI)

Stakeholder(s):

IDNI Team :

We gathered people who are passionate about changing our world and to build a better society. Our team is composed of professionals across different industries and practices, to make sure our development is relevant to people from all disciplines.

Ohad Asor :

Head of Development — Ohad is a Software Developer and Mathematician at top tech companies in Israel since 1995. He was the youngest university student in Israel, studying Mathematics and Computer Science. Over the years he has accumulated extensive knowledge and experience in programming and various areas of math, with recent focus on and logic, machine learning, complexity theory, philosophy of science, economics, social choice, and decentralized networks. He designed and implements Tau and Agoras. As the founder, he is currently leading the development of the project.

Tomáš Klapka :

Alpha Client Developer — Tomáš is an IT specialist with more than 20 years of experience in software development, integrating systems and administration. He has worked for various companies, including SUSE and Liberty Global. His interest in Semantic Web technologies and the future of internet exposed Tomáš to Tau-chain, where he already developed the first TML playground.

Dragan Krunic :

TML Developer — Dragan is a Senior Software Architect and core C++ developer since the early 90s, he helped design and develop large scale trading tools and ticker plants (for Reuters, FutureSource), Sports/Betting live feeds and full server solutions (Las Vegas Casinos), Harvard University (HMS) web server, various automated web solutions and APIs (for WPromote.com, US marketing agencies, and shipping), Medical s/w, low-level drivers and security solutions for Windows and Linux, SMS gateways and more. Most recently he designed & implemented an internet unique fully anonymous blockchain network (a redesigned fork of the I2P/d for one of the altcoin cryptocurrencies) and mostly working as a very passionate blockchain and ETH/EOS smart-contracts architect/developer. Dragan is a hacker for what now seems forever and fanatical about anything that 'moves' and needs automating.

Andrei Korotkoff :

Alpha Server Developer — Andrei is a skilled C/C++ programmer with many years of experience. He started programming C at the Khrunichev Space Center more than 20 years ago, and since then worked at various IT companies developing and delivering products and services to companies including Lukoil, Gazprom and Alrosa. Andrei's main focus of interest is the development of scalable network communication systems.

Juan Agustin Rodriguez :

TML Developer — Juan is a Computer Systems Engineer with more than 15 years of R&D experience in several fields of Software and Digital. He worked and collaborated as researcher, engineer, lecturer or independent consultant for several universities, government institutions, startups and corporations in the US, Costa Rica and ArgentinaHardware design. The projects he has been part of include the implementation of application-specific VLSI processors, lecturing in digital hardware design and verification, functional verification of satellite radar equipment, development of formal verification technology for system software and smart contracts, new PoW, secure protocols and mining equipment development for blockchain and scientific computing for optics, ray tracing and automatic speech recognition applications. Juan holds a Ph.D. in Microelectronics from UNS.

Isar Flis :

Strategy and Operations — Isar has years of management consulting experience from Ernst & Young (in New York and Tel Aviv), where he worked with Fortune 500 and startup companies. He is a veteran member of the Israeli Bitcoin Community and the co-founder of the Blockchain Club at Cornell University. Isar holds an MBA degree from Cornell University and a LL.M and BS in Economics from the University of Haifa.

Fola Adejumo :

Business Development — Fola is a startup expert, with years of experience in managing, and unifying global teams. He has an industrious career in product creation through his dealings in global manufacturing, co-ordinating product design and delivery, for Fortune 500 companies. Armed with first-hand knowledge as the founder of a successful company prior, Fola understands how to take a company from a single apartment to a global network.

IDNI Advisers

Felix Forster :

Business Development — Felix advises a large VC on their emerging tech strategy and is interested in all kinds of complex dynamical systems. Operating in the blockchain space for many years, Felix founded a first-generation payment provider for cryptocurrencies in 2013, while operating a company that developed automated trading systems for the stock market. He studied business and economics with focus on information systems and marketing.

Yann Wang :

Asian Market Communications — Yann has abundant project management experience working in China Academy of Social Sciences, the top research institute in China. He is an entre-preneur (founded SPO and co-founder of LunarX), an angel investor and a veteran in the crypto-world, where he helped building communities for various projects since 2013. Yann holds a M.Phil and B.Eng.

Ethan Chen :

Marketing — Ethan has over 14 years of experience as a product and marketing manager in a global megabank and an online forex company, focusing mainly on large enterprises. In the past few years, he was providing marketing and community building services to several ICO projects, including Starbase, Mainstreet, SingularDTV, Firstblood and BlockCDN. Ethan holds a BS in Business Management.

CapitanArt :

Design — CapitanArt is a graphic design and 3D animation business, led by Juan, a graphic illustrator with more than 20 years of experience, and his brother Jordi, a member of the Blockchain Association in Catalonia. CapitanArt provides de-sign and concept art services for top companies such as Amazon, Ubisoft and Motorola. Juan is a master and a trainer for digital drawing, while Jordi has BS in computer science and telecommunications.

Fran de la Torre :

Web Developer — Fran started programming and designing web pages in the year 2000 and in his 18 year career he has carried out hundreds of projects for companies and public administrations in Galicia - Spain. He defines himself as a passionate self-taught in perpetual training. Crypto-enthusiast since 2015 believes in decentralization and transparency of any kind of power.

Vision

Complex problems are solved

Mission

To build a better society where knowledge can be created more efficiently and better distributed to

Values

Knowledge

Collaboration

Consensus

Fairness

Comprehensiveness

Efficiency

Intelligence

Decentralization

Networking

1. Tau

Solve the bottlenecks in large scale human communication and accelerate productivity in human collaboration.

Tau is a decentralized blockchain network intended to solve the bottlenecks inherent in large scale human communication and accelerate productivity in human collaboration using logic based Artificial Intelligence. Currently, large scale discussions and collaborative efforts carried out directly between people are highly inefficient. To address this problem, we developed a paradigm which we call Human-Machine-Human communication: the core principle is that the users can not only interact with each other but also make their statements clear to their Tau client.

1.1. Consensus

Deduce areas of consensus among in real time.

Our paradigm enables Tau to deduce areas of consensus among its users in real time, allowing the network to boost communication by acting as an intermediary between humans. It does so by collecting the opinions and preferences its users wish to share and logically constructing opinions into a semantic knowledge base.

1.1.1. Translation

Translate languages without loss of meaning.

The Internet of Languages — There is no single best language for all purposes which is why we build the Tau Meta Language (TML): a language intended to define other languages and translate between them while maintaining the same information. TML allows seamless communication and semantic translation between programming languages, knowledge representation languages, visualization and organization formats, domain-specific languages, and more.

1.1.2. Discussions

Scale discussions.

Scaling Discussions — Discussions are a highly valuable social process of exchanging thoughts and opinions which can lead to inspiring fresh ideas and deducing new concepts. Currently, discussions on a large scale are highly inefficient: having a discussion among 500 people generally yields a less productive result than a discussion between 5 people. But what if we could not only listen to hundreds of people at once, but comprehend and process all this information in a useful way? By having Tau as an organizer in our Human-Machine-Human approach to communication, we can effectively summarize and query all discussed data in an efficient and comprehensible way, and, for the first time in history, allow discussions to accommodate for any number of participants while remaining productive. Having a x100 increase in discussion participants under Tau could, in theory, yield x100 more information utility and knowledge productivity.

1.1.3. Knowledgebase

Aggregate and broadcast opinions and ideas.

Global Knowledgebase — Once knowledge representation languages are defined under the TML, any user can freely submit opinions and ideas as logical predicates to their Tau client, or broadcast it to the Tau network, which combine to form a knowledge base. Users may in turn query this knowledge base and Tau will help them

deduce the answers they seek. The production of knowledge heavily depends on the efficiency of discussions. Therefore, by resolving the bottleneck of large scale discussions, Tau can effectively greatly accelerate the production of all knowledge worldwide.

1.1.4. Collaboration

Automate and accelerate collaboration.

Accelerating and Automating Collaboration — Many worthwhile human undertakings depend on collaborative efforts. By expediting these efforts, we can effectively accelerate the development of our entire species. In addition to being able to scale discussions, Tau's decidable logical framework allows it to synthesize and execute code based on user specifications. Users can create their own teams under Tau to discuss and collaborate on a project with its own private knowledge base. After taking advantage of Tau's ability to scale discussions, teams can quickly reach a consensus on the specifications and Tau can automatically generate and execute code, according to those specifications.

1.1.5. Social Choices

Form a fair, comprehensive and efficient method of social choice.

Real Time Social Choice — Forming a fair, comprehensive and efficient method of social choice has proven elusive in many fields. In large communities, deciding on which issues to vote on becomes unwieldy, leading to many important social topics and insights being ignored. Similarly, large organizations are often paralyzed in their inability to make important network wide choices, leading to low productivity and even failure. Tau introduces an innovative social choice mechanism: users only need to express their opinions in the form of logical predicates (using language defined over TML) posted on the network, enabling Tau knowledge base to be an aggregate of social preferences of every opinion of all its users. Together with the logical property of decidability and a novel consensus formula of ours, the social choice mechanism allows Tau to calculate things like the consensus on every topic expressed, regardless of how remote or esoteric the subject matter.

1.2. Coding

Automatically generate and execute code.

Able to deduce consensus and understand discussions, Tau can automatically generate and execute code on consensus basis, through a process known as code synthesis. This will greatly accelerate knowledge production and expedite most large scale collaborative efforts we can imagine in today's world.

2. Agoras

Support an intelligent economy revolving around the production, distribution and pricing of knowledge.

What is Agoras — Agoras will be a fully featured intelligent economy revolving around the production, distribution and pricing of knowledge, thereby aligning monetary incentives with Tau's capabilities over which it is constructed. Agoras will also share Tau's dynamic architecture, allowing its parameters to be amended based on the community's desire in real time. In addition, it will feature a computational resource market as well as advanced financial tools such as a derivatives exchange that allows risk-free interest with zero inflation.

2.1. Computation

Enable users to tap into smartphones and PCs as a rental market for computational processing.

Computational Resources Market — The combined computational power of all the servers of Google, Apple and Facebook is only a tiny fraction of the total processing power of the hundreds of millions of smartphones and PCs sitting idle in the hands of ordinary users. To enable users of the Tau network to tap into this unharnessed resource, a rental market for computational processing power will be built in Agoras. The design is based on the Zennet project and its innovative pricing formula.

Stakeholder(s):

Zennet :
Zennet is a public, distributed, and decentralized Supercomputer. Computation power is traded on Zennet 's open market platform. Anyone can rent computation power and use it to run arbitrary tasks. Anyone can monetize their hardware by offering unused computation power for sale.

Publishers :
Zennet allows Publishers who need computation power to run arbitrary computational tasks. Computation power is supplied by Providers for a negotiated fee. A free-market infrastructure brings Publishers and Providers together. Publishers can hire many computers and run whatever they want on them safely, thanks to cutting-edge virtualization technology. Payment is continuous and frictionless, thanks to Blockchain technology, among other technologies that shall be discussed later on.

Computation Power Providers

2.2. Financing

Support an electronic derivatives market.

Advanced Financial Tools — Agoras economy will naturally contain various types of players, such as hardware owners/renters, knowledge owners/buyers, miners and exchanges, where each player has his own hedging needs. Our economy will contain an advanced and electronic derivatives market that absents any leverage and allows risk-free interest, without the need to print new "money" (tokens).

2.3. Automation

Automate business.

Automated Businesses — By leveraging the power of Tau, Agoras participants will have access to a vast wealth of knowledge on every imaginable topic like the economy, law, society and information about merchants and their goods available on the market. It can then operate as user's personal automatic businessman, intelligently tailoring complex deals in a manner that provides them a competitive edge.

2.4. Efficiency & Fairness

Propagate information quickly and freely within markets.

The efficiency of a market is first and foremost a function of the speed at which information propagates within that market. As our economy is entirely online, information can flow quickly and freely so we can expect Agoras to be highly efficient. This creates a fairer market in terms of information availability being more even. Another aspect of fairness is that resources on our network are typically bought by larger entities and sold by the wider audience: larger players are more likely the ones who need to rent millions of computers and are willing to pay for the unique knowledge held by the user-base, while smaller participants can simply rent out their idle computing power. We can therefore expect to see money flowing in the right direction: from the rich to the poor.