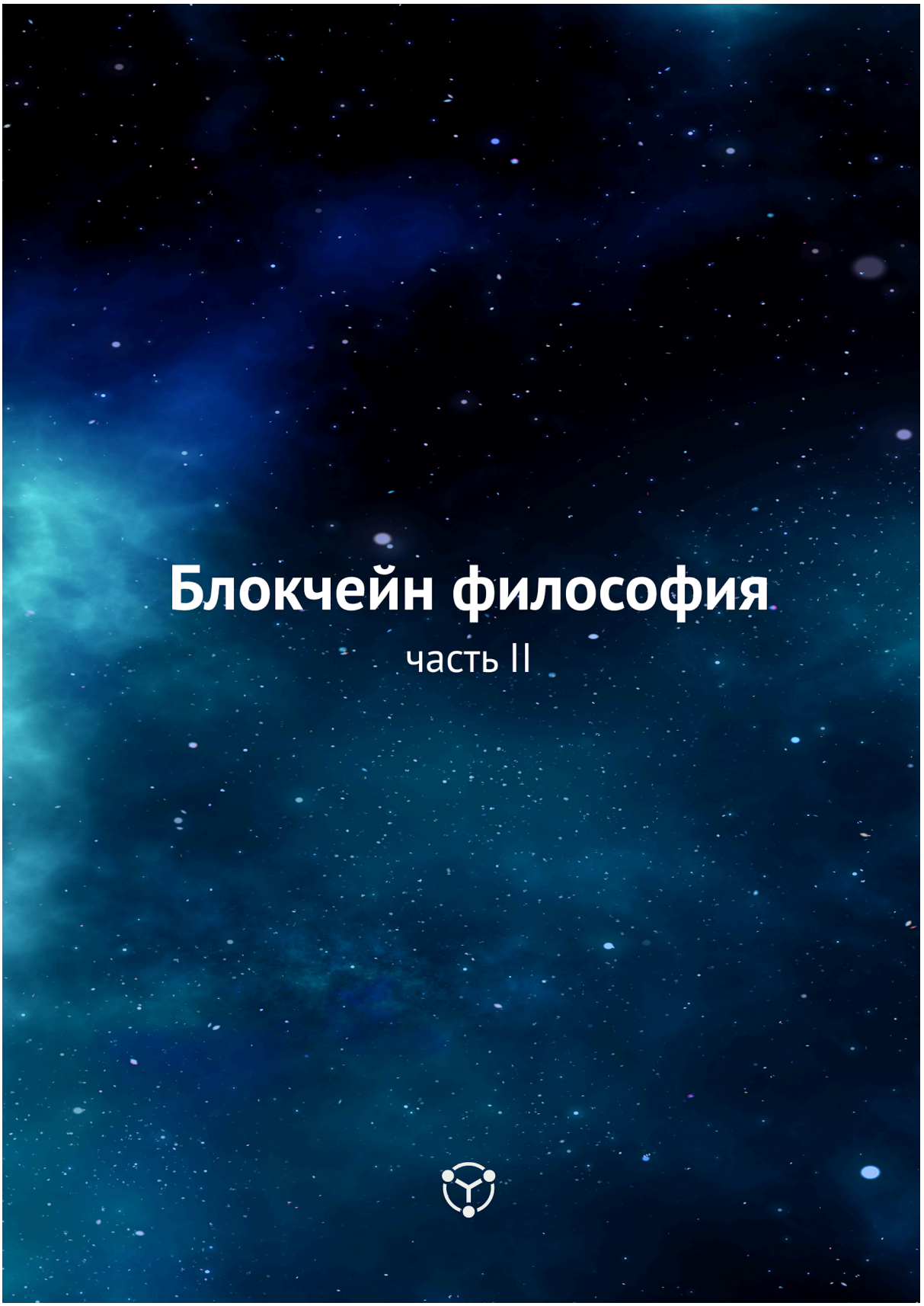
Блокчейн философия
часть II

Basics

The first part of my book came out not so long ago, but has already, if I may use such an archaic expression, found its niche: it's translated into Spanish, mostly in English, and the translation into Chinese is starting soon.

But this strong second - in a purely musical sense - beat of my book has its own roots: we can't talk about decentralization and its approaches without practice.

The first message - the sound of space and the songs of whales: we, the people of the Earth, don't hear it, although every day thousand of stars explode and hundreds of whales talk at madly low frequency across the oceans.

We neither hear the ring of Galaxies, nor the inner vibrations of trees because of the impossible streams of juice climbing up against gravity, nor even the resonant vibration notes of our own body.

Nothing. Nothing, but the sounds our complex ear mechanism perceives, the feelings of our skin (less often), our intuition (even less often).

So, blockchain isn't just a fancy word, or an incredible opportunity to remember the interconnection of our minds, but it's also an incredible sequence that can excite every human part: material, spiritual, emotional, and mental.

The second message - is even further away from us: the smelling light, multicolored time, a sound crashing to the ground under its own weight, the rolling ever repeating point - all of these are the scraps of dreams that we cannot have in the world of four dimensions and the continuum tailored according to Poincaré’s theorem.

But we would like to.

The new world - damn you Aldous for distorting this expression - is not just madness of roaring ideas, but it's also an endless series of the smartest thinkers: developers, organizers, enthusiasts.

The third message is about free artists: neither Dali, nor van Gogh, nor Picasso, nor even Zidane (not recognize them as free artists in their element would be stupid) never lived with the thought that everything is possible and there is no rules.

Picasso drew complex images and simplified them; Dali intentionally got into academic environment, already drawing like a professor; van Gogh had his style and

could stop, but he moved on; let alone Zizou, who became famous when most footballers end their careers.

Today, many people believe that freedom is something more than that: the poem "The Grand Inquisitor" hasn't taught them - they want to learn the world on their own: but the thing is that they have no equipment, knowledge, or skills for a lone ascent. And they won't have it: since childhood, people are being taught to take. Yes, the skill to spend money is a great art too, but one can succeed in it only in two cases: if you are at the top of the digital circuit, or if you complete the circuit and create a harmonious model out of it. The latter is not peculiar to humanity so far, and it could lead to a planetary catastrophe in the next few decades.

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It's always very strange to hear about "what can not be": a human will never fly, private money will never be born, universal chipping will not be implemented ...

H. - is rather a self-confident, but, as a rule, insignificant being, which even tries to prove just the opposite not only to others, but to himself.

At least the existing human is a **consumer**.

That's why blockchain philosophy is out of fashion today: Bitcoin at auction beats all sorts of boundaries - from the bottom to the top; Ethereum builds a brand new invisible web of virtual reality for everyone; IOTA prepares us for the dominance of things - but it's only a drop, an echo of what is really important.

What exactly?

First, a decentralized approach: each of us is born in the Universe, which some people try to reduce down to Maslow's pyramid, where allegedly there are the primary needs at the bottom, and then go higher and higher needs above.

But is that so?

Have you ever been to slums? Old dorms and dark neighborhoods? Even there, in these evil places and the union of worthless bodies and mad souls, one can see that **people are creators first of all**: children compose imaginary battles on shabby fatty tables; adults try to decorate even the most poorly furnished dwellings, and sometimes you can meet young artists, musicians, poets or, for example, code writers.

Every time this causes confusion, tenderness or some other emotion, but that’s a fact: the indestructible, important, concrete fact.

Therefore Maslow's pyramid is no more than a poor simplification: this is just one more scheme that was created for people not to think about the essence of things but to live as they are supposed to, i.e. in their places.

But what is a place in the chaos of flows? No one's answered.

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This is here where BPh (Blockchain Philosophy) begins: to see the vital in everyday life and the meditative in actions. More specifically, decentralization is some sort of

simplification, which is difficult for us, because we are used to the living when we think that a person has one brain, lives in a state with one ruler, and eats more or less the same products. The rest is insignificant and permissible within the system of fluctuations.

The problem is that's not true. Absolutely.

***

A human is originally born giving: children only for a while become egoistic and this is necessary and inevitable because it allows a human to identify himself and move on. To share.

I've said that many times that in the society of consumers this temporary egoism is absolutely hypertrophied and what's important that it cannot exist by itself. Absolutely can't. Shouldn't. But it does exist[1].

The task of BPh is to unfold this trend and set the right direction: evolution, not infantilism.

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The world today lives under a crystal cap of statehood: every act is fixed by authority. Was born - a document, died - here's one more pack.

But why?

Who needs all this heap, although electronic, of paper? What is more important and, perhaps, the only important thing is the reputation, that is, exactly how we give ourselves to the world.

Today people take into account this aspect, but nowadays it has secondary meaning, not primary as it should. That's why the blockchain gives us anonymity and full transparency at the same time. This approach is not easy to understand, I would even say that one can only try it, but that's the future because today it's important, although forgotten. Well, it's important not only for those who are used to look into the black and see darkness.

[1] More details https://www.litres.ru/vladimir-popov-7629101/ya-otec/.

Part Two. Introduction.

The first part of my book was devoted to the following main issues:

1. Origin of thoughts about blockchain philosophy;
2. Establishment of basic terms;
3. Paradoxes of the consumer society;
4. Philosophy as an instrument of struggle;
5. Epistemological and ontological aspect of technology;
6. Corruption of human nature and what to do about it?
7. Prospects.

Also we'll talk about even broader phenomena: freedom, the future and how this is all connected with the new paradigm of thinking.

Do you feel the proximity of powerful changes in self-consciousness?

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My experience of tens, soon even hundreds, of speeches suggests that the theme of philosophy becomes more and more actual for three reasons:

1. People, not even the majority, but **almost** all of them, **almost** do not understand the processes taking place here and now: not because of stupidity or similar factors, but because it's necessary to look at these processes differently, absolutely differently, when the laws don't work physically. Something similar happened when we moved to the theory of relativity and quantum mechanics a century ago, or, if you are a humanitarian, when realism turned to modernism. Perhaps, the position of "Arrival" is closest in this aspect, but it's visualized still, whereas my message is to learn to abstract without mental images. Yes, that's a paradox, but you can handle it.
2. Nowadays the fragmentation of analytical thinking is an increasingly obvious flaw, which has become so stale that it causes an unbearable, infernal pain if cut. And this pain can be reduced in not so many ways: and it's philosophy as the essence of generalized knowledge that helps to achieve harmony in the most harmless and correct way.
3. Finally, in the age of the colossal evolution of mankind as a single-minded organism it would be strange not to recall the science that learns to think: not formally, but fundamentally.

Therefore, let's continue. Let's talk about slavery first: a topic that little worries the hearts of the people living next to me, but that can already in half a generation lead us into unthinkable fetters of world terror.

Tokenization or Slavery?

A small portion of us understands what tokenization is and why we need it: meanwhile, tokenization is the digitization of activity with the help of the blockchain. The definition is wide, but you can actually tokenize everything: yourself, a business, government processes, and even irrational phenomena. However, first things first.

First of all, the personality tokenization: perhaps this is the most problematic but at the same time important issue: in fact, a person's identity can be digitized completely. Now Civic, Humaniq, and a number of other companies are trying to do this. But for now, it's a usual sale of personal data, with literally "fastened" blockchain. There is plenty of opportunities: first, one can digitize his reputation. Second, certain obligations and rights. Third, a human body. Fourth ... But let's start with the reputation.

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When I started the development of a global reputation system (GRS), on the basis of an open p2p blockchain system and smart contracts, there were a lot of critics, who said that this system would lead to one of "Black mirror" scenarios or to a new USSR (current analog is the credit ratings system of China, which is being written much faster than this book, where people are already banned from using high-speed trains for overdue loans - not to mention the responsibility for VPN usage and extensive practice of the death penalty).

The problem is not the solution, but the heads: for some reason they decided that reputation is a product that has purely quantitative (ratings) or subjective (expert, friendly, etc.) criteria. In fact, to be honest, everything is much more difficult.

First: the reputation must consist of three elements: quantitative, temporal, and subjective. Three, at least.

Time Numbers Opinions

The quantitative criterion reflects numerical indicators:

- number of attracted users (business),
- written scientific works of a scientist,
- social network subscribers, etc.

The temporal criterion reflects temporal coordinates:

- seniority,
- research time,
- development period, etc.

Finally, the subjective criterion is the evaluation by other users, including experts.

In order for the GSR to be balanced, each criterion gets no more than 1/3: in this case, we avoid the situation when if you want a good reputation, people must like you. Of course, nobody cancels empathy, but the reputation, first of all, is the objectification of subjective evaluations with the help of different criteria and approaches.

The analyzed existing systems of "reputation" (read more in the Protocol of the Global Reputation System), as well as those at the development stage have no such criterion and therefore are vulnerable to various social attacks, such as:

- fake rating,
- groups to lobby for interests,
- gradation to "higher" and "lower" castes, etc.

On the other hand, the GSR can't take the quantitative criteria only: *a rating is not a reputation*. The rating only reflects the quantitative side of a reputation. That is why I find absolutely inappropriate all the existing rating and ranking systems for ICOs, blockchain projects in general, or even IT businesses.

It's sufficient to recall the reasons and consequences of the 2008 crisis to make sure that the sale of ratings has long turned into a profitable business which, at the same time, doesn't give us anything objective.

Exactly the same can be said about any other attempts to automate popularity:

- cheat likes and subscribers,
- increased views and comments on social networks,
- expertise, etc.

This problem can be solved as follows:

1. **Unify the criteria for estimating time and quantity resources by industry**. Let's say that it takes at least 10-12 years to become a doctor of science. If a person for some reason can achieve this earlier, then the criteria are needed: there'll always be exceptions, but exceptions do nothing with the rule.
2. **Reputation should be a by-product of activity** (read more in the White Paper of the first successfully completed modular ICO), and not something you can sell, earn through some rating and so on. However, it can, even must have one function - **the pledge function**. Reputation can't be sold or transferred, but it can be pledged: this is how social relations are built now, and this is the best aspect to digitize (tokenize) with the help of the blockchain. More details - below.
3. **The effectiveness of the amount and time spent on a sphere should be evaluated according to one objective criterion**: the social utility. Now this parameter for most ears and eardrums sounds rather vague, but let's try to understand this phenomenon in detail.

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The pledge function of a reputation looks pretty simple, but that's the main problem:

- First, in any sphere (industry, field, or activity), the reputation should have such marks as +1, 0, or -1, where +1 means expert reputation in the matter, and this is the highest reputation value; 0 is a person who's new to some sphere; -1 (one minus) - the reputation of a person who either pledged his reputation and was unable to fulfill his obligations, or deliberately deceived someone.
- Second, each mark (+1, 0, -1) has the gradation from 0 to 100 points (or percentages): for example, two people have the +1 reputation, but one has 0 points, and the other 100, this means that the second person is more competent in a particular field. This is a quite often situation: a doctor of

science who's just defended his thesis and a world-famous professor can have equal status, but different achievements. However, thanks to the availability of temporal and quantitative criteria, the young professor has every chance to get around his more experienced colleague. The same refers to the subjective criterion as well. It's also worth mentioning separately -1 mark, because responsibility is always the most difficult aspect of human activity:

- Direct deception, e.g. fraud, and a failed business of the man, who pledged his reputation, but tried his best - these are two very different situations. Therefore, in the first case, the person will get not only -1 mark, but also minus 100 points, and in the second case there will be, say, -1 mark and 5 points only.
- If a person with 0 reputation mark in some branch in order to get +1 mark earns one point at a time (however, this may be a fractional number), but if a person has -1 reputation for the same actions he receives the same number of points, but multiplied by 1/2 coefficient; if a person gets -1 reputation for the second time then he receives the same number of points multiplied by 1/4 coefficient and so on. That is, the more you deceive or poorly pledge your reputation, the harder it is to get out of the debt hole: everyone will have a chance in this system, unlike the current approach. If it's not clear why - study the experience of the "correctional" institutions of the CIS countries.
- The points should be accrued on the basis of medium- or even long-term perspective by industry, but also consider adjustments, so AI can be either an element of the GSR or a participant.

- Third, one cannot pledge his the reputation only in some sphere, project, etc. It can only be pledged in full amount: that is, all the spheres where a person has +1 reputation mark (and a certain number of points, depending on the operation being carried out: say, collection of money, financing may require more than 50 points, but public activity - less than 10) and thus the person literally puts on the stake all his life.

Where can this be useful? **A banal, but important example - ICO**: a lot of useless projects received a lot of money, at the same time - good ones didn't. But why? Because today reputation is an archaic element that is difficult to evaluate, understand and digitize. When a life-long physicist and a airplane model designer but with no business experience offers an ICO in the sphere of mini-drones, i.e. there are all reasons to believe him more than a yesterday's schoolchild who wants a Mazarati and to "go around the whole world", especially if the physicist will have to pledge not 1 or 2, but 50 reputation marks with an average score above 75 points.

Of course, a person that has lost his reputation won't become a bad father or husband (if he used to have +1 mark in family relations sphere), he won't stop working, but, before correcting his mistakes and getting +1 mark again, he will get no adequate money from adequate people for a project.

And here we face another problem that modern reputation systems don't solve: **the problem of the rogue**.

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What are the similarities between the apartheid regime, the modern penitentiary system of most countries, and international sanctions? All of them generate rogues at some level: a nation, a community, a state. In this sense, black people, convicts, and North Koreans are unified. But who said that this approach is correct?

It's more logical and fair to ensure that a person doesn't want to be a rogue, as seen in the case of Russia's thieves or India's lower castes, but always wants to return to the society in order to get the proverbial synergistic effect. Otherwise, mankind is doomed to walk in a vicious circle, and we do nothing but create more new forms of segregation.

Of course, fraud and other illegal and immoral acts shouldn't be erased, but thanks to the GSR, humanity must re-understand the old thesis about original sin of each of us: Western civilization insists on the depravity of the human race (read more in "The Shadows of the Next Sun"), whereas in fact a person is born just bright and pure. Further, due to the established laws of socialization, he begins to live according to the criteria of competition and thereby acquires the skills of forgery, slander and other methods of unfair struggle. However, there are many exceptions, and therefore the value of thereof only increases.

The GSR gives everyone not only a second but even a third and subsequent chances: it'll be just extremely difficult to get out of a reputational pit with every new offence. But more important is the understanding of another aspect: loyalty should and can be built fairly in decentralized and distributed systems only, not in centralized ones.

I'll explain.

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Loyalty, obtained in the centralized society, always depends finally on the will of the center: today, in our world, this institution is called the state. It's the violence monopoly that allows it to change the rules of the game at its own discretion, at any time: some states do this with their own citizens, some with the citizens of other countries. But the essence doesn't change, only the order, level, and scope.

The most revealing and terrible example is the previously described system of credit rating in China: at any moment any citizen can become objectionable to the system, and be eliminated from the society. In p2p structures, the creation of subcommunities is actually an endless process that strongly blurs the controls, making them ineffective.

Let's say someone wants to hire an employee who has the +1 reputation as a specialist, and as a leader -1 mark with ten points. Someone wouldn't want to hire such a professional, but someone - would notice that -1 mark is set because of the person's rigidity and honesty and would appoint him as CEO or even make him a companion. The beauty of the GSR is that it gives us a landmark: the choice is always up to us. Always.

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Protocol of Global Reputation System (brief)

The full protocol is described in a separate brochure: here are some excerpts from it to explain the phenomenon of the GSR in different aspects.

This document can be considered as the base for any reputation or rating system. In a world where blockchain can be used not only for good, but also for harm, creating a system of a brand new format when closed entities (states, banks, churches) with the institution of violence (state, private armies) are able to control open systems (society, citizens) with the help of technology and at the same time can conduct any, even the most dishonest game - this seems unacceptable.

Main mistakes of rating systems

Nowadays, there is a huge number of ratings and systems of their accounting, ranging from likes on social networks to near-expert evaluations of ICOs and other projects.

But having studied the experience of different services and projects, we can conclude the following mistakes which are typical for most of these systems:

1. Almost any system tries to make prevailing one of three factors: temporal, quantitative, or subjective, whereas their interdependence that is the basis of normal and stable work.
2. Many ratings after performing evaluation try to sell this information, but it's a mistake which doesn't correlate with the experience of each of us: reputation should be pledged, not sold.
3. In addition, all complex rating systems can in fact be unified into a simple GSR system, described below.

Now - more about each item, starting with the last.

-1 ——————0—————— +1

In any sphere, reputation can take one of the three marks:

- Zero mark- when the reputation is just beginning to accumulate, that is, a person, an organization or any other entity is just beginning to enter the industry;
- Plus one mark - if, as the result of successive actions, a subject gains the maximum number of points and passes to the status of a trusted node (this can be an expert, a node, etc).
- Minus one mark - this mark is an indicator of negative reputation for situations in which a subject has intentionally or unconsciously (for objective reasons) committed acts that violate the trust in him of other similar subjects.

Such a system may seem primitive, but this is its main advantage: either you have a reputation or you don't, at all. It can be positive or negative.

Of course, for a more familiar understanding, in addition to -1,0,+1 marks you need an additional criterion - points or percentages.

0————————————————100

By gaining points from zero to one hundred a subject can thereby improve his reputation in a particular industry: a new subject is given 0/0 reputation (zero GSR mark and zero GSR points).
Further the subject earns points for each useful action (according to temporal, quantitative, and subjective criteria): having earned 100 points, the subject gets +1 reputation mark and can already pledge it.

In this case, the subject can also accumulate further points from 0 to 100 within +1 reputation mark. At the same time, it's harder to earn points within +1 mark because

there is a 0.5 coefficient, that is, for each action the subject gets not one point but a half point.

+1 mark /100 points - that's the maximum, and further in this sphere the subject can maintain his reputation and also spend earned points as social capital, which is not cryptocoins or fiat money.

The full overview of GSR includes:

1. Pledge of reputation;
2. Negative reputation and its features;
3. Social capital within the reputation;
4. Transnational reputation system.

Pledge of reputation

This action is the core of any reputation system, as it monetizes what the subject does for a certain time: it's important that the reputation can be pledged only if the subject has at least two (or more) +1 marks with not less than 50 points in each mark. Other criteria are up to specific implementations of the GSR.

A pledge may require even greater minimum of +1 marks depending on the complexity of a project, its risks, and other factors. At the same time, all the marks always go to the pledge: this means the subject "lays everything on the line" like in the real life.

The number of points needed for a pledge can also be changed (but cannot be less than standard 50 points).

Thus, the reputation allows you to accumulate social capital and not to monetize it, but with its help you are able to obtain ordinary capital (fiat/ crypto-money, basic facilities, etc).

Negative reputation

This kind of reputation arises at a time when the subject doesn't fulfill his pledged promises.

Since deception can be either intentional or unintentional (due to the objective reasons), -1 reputation mark also includes reputation points (from -100 to 0).

-100——————————————————0

At the same time, in order to avoid vicious rating systems on the one hand **when the rating itself becomes valuable**, for which people are ready to give anything (the simplest example is the like-dislike system as it was shown in the notorious "Black Mirror" series), it's necessary that any subject could improve his reputation, while making the first or even subsequent errors.

For this purpose, under a reputation pledge, the maximum threshold of points within the negative reputation is determined (but it can't be less than 25%). In this case, there is also a complexity coefficient: for the first-time negative reputation - 0.5, then - 0.25, then - the previous coefficient divided by 2.

Thus, every action with negative reputation will bring two times less points, four times less points (second-time negative repetition), and so on.

On the one hand, this approach allows the subject to correct his even the most depressing situation, on the other - doesn't allow scammers to simply use the trust of other subjects and earn points quickly.

Social Capital

Social capital within the GSR has a double nature: first, the reputation itself is a reflection of the accumulated social capital; second, social capital can also be accumulated when the subject achieves 1/100 reputation in some field. In this case, social capital **can be monetized, but only in favor of third parties**. The description of this process is in the protocol.

Transnational Reputation System

As noted above, the reputation itself can't be a unit of account, but due to its pledge function it can be used to make transactions. In this sense, every subject acts as a single specific node. It's important that any entity capable of generating transactions can be the "subject": state, telephone, person, planet.

To conduct a transaction in this case, you need to search for two nodes that have a positive (+1 mark) reputation and at least a minimum number of points (zero points).

For a subject with +1/100 reputation, a transaction is confirmed/conducted by the subjects with the same reputation or, in the absence of the latter, by the subjects with the closest reputation.

All other transactions are conducted by subjects with a reputation equal to the reputation of the initiator or higher.

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The GSR carries incredible possibilities of heterogeneous subjects associations: it can be used to control IoT, to conquer outer space, to create communes of all kinds, to implement anti-fraud solutions and more.

From the protocol point of view, it's right to look at the GSR through these examples:

1. Work of a scientist;
2. Business;
3. Creative process;
4. Operation of a device;
5. Functioning of a state.

Chapter II. A New Approach to Blockchain

The blockchain phenomenon itself is based on the following assumptions:

1. Anonymity in one form or another;
2. Openness;
3. Transfer of trust through cryptography and automation.

But these conditions still create the blockchain where a transaction is initiated (and signed) by the sender, while in reality a transaction is often initiated by the recipient.

So, when I want to talk with someone - I don't need to initiate a transaction inside "phone - station - phone" system. I can leave the message in a different way, but initialization will be already in the given communication system.

In the case of non-violation of agreements, this is how pension funds work: a pensioner in a given system[2] has the right to get a minimum payment, which is initiated by one of the possible ways when the condition is activated - a pensioner reaches a certain age. Today, this procedure is accompanied by bureaucratic delays[3] , but with the help of DAO funds it's possible to make it completely automatic.

Much more surprising is the understanding that such transactions can arise spontaneously. For example, I have 1,000,000 units on my account. Every subject can take at least 1 unit, but no more than 100 at any given time. So very soon I may have 1,000 units on my account. But I also can take the units I need from other subjects whose balances exceed the specified level.

Why do we need this approach?

1. In order to make transactions using reputation systems, when the concept of money is needed only to facilitate quantitative accounting within the system;
2. For various kinds of social projects, which with the help of such a unit can limit and calculate their expenses;
3. For testing of any systems with social capital.

This view seems unusual, but only in the world where the thesis "money is a limited resource" is taken as the basis. In fact, for a long time, at least since the creation of the Fed, money is an endless resource for a limited number of subjects. Why doesn't

[2] It's funny to reread this text when the pension reform in Russia has just been completed, what I predicted 10 years ago.
[3] Although not everywhere: there are good examples in the US, Singapore, the EU, and a number of other countries.

everyone have the right to such a system for various purposes that don't contradict the goals of a particular social or other entity?

Therefore, the future lies precisely in the field of tokenization, which is nothing more than a theory of private money, perfected, somewhat modified, and polished by practice.

Chapter III. Tokenization - examples and opportunities

Unsuccessful examples can be found in the Synergis collection - http://itsynergis.ru/book-tokenizazia-realnogo-sectora.

The simplest kind of tokenization is property valuation through tokens: this approach is often seen on ICOs. But even here, there is a lot of mistakes which can be seen with the naked eye:

- First, the tokenomics should consist of four mandatory and may include a number of additional elements (each will be considered in detail later):
    - Token functions;
    - Token model;
    - Correlation coefficients ;
    - Quantity.
- Second, the token should be as close as possible to the minimum service or product: then the number of issued digital assets begins to acquire meaning. Before that, we just have a set of zeros and other digits.
- Third, you can tokenize everything[4], except for faith, hope, love, but there is always a question - what for? The blockchain in most cases is used completely out of place, but meanwhile it has quite obvious criteria of use:
    - Spheres where it's necessary to automate trust due to openness, cryptography capabilities, etc;
    - Spheres where it's important to get the widest opportunities from the widest possible number of people (that's how the ICO market was born);
    - Spheres where it's important to remove middlemen, even if they provide the necessary level of confidence: say, to optimize costs two or more times.
- Fourth, tokenize all the spheres with Ethereum or any other system is merciless and incorrect, since ERC-20 tokens (even those made by Bancor) have their own set of characteristics that are often inappropriate: for example, at 500-1500$ per 1 ETH and higher, transactions become expensive, which

[4] There is already a lot of digitization methods today: video surveillance, chipping: marking, QR code, chip; complex devices: 3D scanners, PAX+ type developments; etc. Offline data can be also obtained through oracles.

means it's not correct to do the tokenization of a business with a large number of transactions in this case. Better use other solutions, say, Bitshares.

Now, let's consider every point in detail.

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Token functions are the features that it provides:

- it can be a purchase/sale of something,
- accumulation of loyalty points or discounts
- etc.

For the token function, the so-called "double immersion" is very important: it's a marketing and economic method, which, on the one hand, increases the loyalty of project clients and allows the project to save certain working capital on the other.

Let's say we have a token №1, which can be purchased for fiat money or cryptocurrencies, and with its help it’s possible to access a certain service (it doesn't matter whether we tokenize an online or offline business). But there is also a №2 token which can be purchased / received:

1. As a discount (point) for active participation in the development of a project;
2. As a cumulative point for:
    1. Elapsed time (e.g. one year on the platform);
    2. Number of the invited (referral program);
    3. Etc;
3. As a purchase for the №1 token in respect to individual actions which are most relevant for the platform. Here are some practical examples:
    1. For the Golos tokens, on the platform of the same name, you can increase the Golos Strength, which in turn gives you the opportunity to get more while voting and participating in the life of this social blockchain network;
    2. In the alpha version of InnMind, a platform for connecting investors and founders, one could obtain a set of services for promoting / participating in projects only for internal tokens;
    3. We have something similar in the classical world: an obvious example is the airline miles that you can buy, get for purchases, and so on, but spend on flights only (however, a number of companies, as Russian Aeroflot, have gone beyond this, thus temporarily increased the attractiveness of their product, allowing to purchase services and

goods from partners, but in fact destroying the orderly system of customer loyalty).

Double immersion is perhaps the most honest way to build loyalty: it's used by Apple to some extent, but this is not about honesty in this case.

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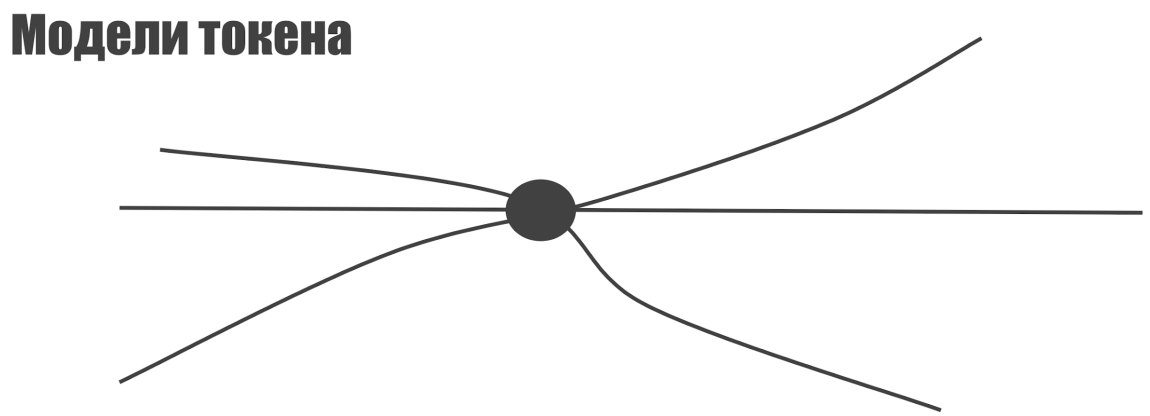
The token model can be of three types: inflationary, deflationary, and stable (are mixed models possible? Yes, they are.)



The names are taken for simplicity and not quite suitable from the point of view of economic theory, but due to the simplification of the material - it's ok.

The inflationary model is rarely used today, but it's more reasonable, no matter how strange it may sound from the mouth of an anarchist: ETH super-token[5] can be attributed to this model. This token is still produced with the help of mining and thus has unlimited emissions (further transition to PoS is expected and, probably, in a year this fragment of the book will be not so relevant).

The inflationary model requires the most correlation coefficients, but this is a bit later.

[5] It's very easy to separate coins from tokens: the first use their own blockchain, the second use a third-party blockchain.

The inflationary model is ideal for spheres with a high turnover on transactions, users, or other parameters:

1. Retail, because here, neither the seller nor the buyer are interested in "expensive" money, if we consider the growth of profits from revenue;
2. Mass entertainment, since there could be an insane number of the actions where tokens are involved;
3. Continue with your example ...

Today everyone doesn't like inflation: in fact, this is another tax that everyone is obliged to pay for nothing. More precisely - ostensibly to escape from the notorious economic crises, including global ones: but the number of local/global crises on our planet shows that this instrument is used clearly wrong.

Of course, one always wants to emit some kind of understandable and finite amount of something, but do we know down to the centner, how much wheat we'll collect in the first, second, or third year from the start of seeding? Or, perhaps, we can guarantee that at any time there won't be created a new product, a technology or an approach that won't reduce/increase the price of what we produce? Or, perhaps, everyone can predict the exact growth and fall?

No, this exact aberration that was at the heart of the USSR planned economy and proved its inconsistency: the **plan is nothing, planning is everything**, but these are just different phenomena and we should understand it.

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The deflationary model, on the contrary, is almost always used in ICOs. Why?

- First, it gives an artificial increase in the price of tokens due to emission limitation.
- Second, it's understandable to the overwhelming majority of investors, since it contains the final figures and forecasts based on them.
- Third, the deflationary model is already used in the world economy: for example, this is how the market of oil, gold, and other limited resources is built.

But do we buy bread for oil and gold? No, this requires quite different units of account. However, if the level of the humanity development was appropriate, it would have long ago adopted the Austrian School of Economics and the deflationary model

would receive proper development and understanding. In the meantime, this is not the case.

There are several opportunities for artificial growth of tokens under such a model:

1. Incineration, that is, the destruction of tokens through a smart contract: say, an ICO sold out 2,000,000 tokens (worth 4,000,000 dollars) out of 10,000,000. After burning the tokens, any subsequent purchase will make (as it seems to the founder) the price more higher. But, as shows the practice of ICOs entering an exchange - this is so for a short time: as speculators leave, nobody redeems tokens so they become cheaper. More precisely, they fall in the price exponentially.
2. The creation of a reserve fund: it's a temporary measure that also artificially limits the number of tokens involved in the turnover, and in essence we get the same model as above, but without burning - that is, without a reduction: Ripple often uses this model with its pseudo-currency XRP[6].
3. The redemption of tokens: perhaps the most dangerous activity of all.

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There'll be not much about stablecoins:

1. USDt type "currencies"- that's a double illusion (not optical, though): can't get enough of the dollar? Let's make two, and the second will be even worse than the first.
2. Real stable tokens (coins) should be based on macroeconomic indicators: the level of the unemployed, the world GDP, etc.
3. Stablecoins are emitted for hedging, and in this key aspect we should study GBG or Steem dollars, rather than miserable Tether.

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If you find this topic interesting[7] and want to learn more, here are a few articles for broadening your horizons:

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[6] I recommend to study in more detail https://golos.io/ripple/@itsynergis/ripple-snova-v-dele-tochnee-nabiraet-oboroty.

[7] For example, in the context of the main problems, to which one can attribute psychological ones: we don't understand why this is necessary, don't know how and where to use it, don't see prospects. Legal: archaic legislation of **all** countries; a new (decentralized) approach to build systems, stagnation of social consciousness (e.g. the theories of Einstein and Newton). Economic: expensive primary introduction, lack of qualified specialists, limited support. Organizational: no staff, no methodologies, no desire in most cases.

1. Why discounts and bonuses are not the same thing, and how to avoid the main problems here? https://habr.com/post/339570/
2. On the popularity factors of tokenomics and ICOs - https://habr.com/post/337416/
3. Once again about the tokenization of the real sector (that's seems to be our future) - http://itsynergis.ru/book-tokenizazia-realnogo-sectora
4. Not bad, although incomplete check-list on tokenomics - https://vc.ru/28352-tokenomika-biznes-gid-po-ispolzovaniyu-funkciyam-i-cennosti-tokenov-chek-list-na-zhiznesposobnost-vashego-tokena.

Now let's try to connect tokenomics (as an example of a much broader process of tokenization), the blockchain (as a technology) and the conclusions of the first part.

Blockchain and Trust, or One More Reason Why I'm an Anarchist

Often I have to explain why I took on the path of anarchism[8] 20 years ago: it seems like this term is misunderstood, people find anarchists ridiculous at best, and at worst - they treat anarchists aggressively, the anarchists themselves sometimes behave inappropriately ...

Why so much suffering?

The answer is simple: for the whole history of mankind, many people have suffered to make the principles of anarchism blossom and develop.

But there is also a downside: trust in the state. It's not important at what point of the Planet to begin studying the statehood - everywhere there are not just flaws but real opened sores (see "the Atlas of Genocide"):

- The USA from the first democracy of the world turned into a gendarme which keeps in fear not only other countries, but also its own citizens.
- Russia is increasingly sliding towards totalitarianism.
- China even admires it.
- The countries of Africa are in conflict over trivial occasions, as if suddenly we all plunged into the history of Gulliver.
- Australia holds on to chauvinism no less than New Zealand does ...

However, here it's necessary to make clear that we are talking about the state and its supporters: the adequate people who value good and virtue in a person, not less.

We just haven't yet learned to fight our own interests, to confront evil without violence: perhaps everybody should use M.Gandhi as a guiding light for the knowledge of the possibility of non-resistance and evolution.

***

The state has changed the rules so many times over the history that I personally have lost count: for some 25 years in Russia, the population was losing money:

- in 1991-1995 due to hyperinflation, vouchers and crazy growth of the dollar.
- In the crises of 1998 and 2008.

[8] https://www.litres.ru/vladimir-popov-7629101/anarhiya-evoluciya-bez-nasiliya/

- In the 2000s when pension savings were lost.
- In 2014 when sanctions were imposed.
- In 2018 when pension reform was introduced ...

The state itself, the officials, was the least affected: this thought is obvious and it's a pretty popular discussion in social networks. But what exactly have my compatriots changed?

Nothing: it's not much time left until March 2018, and I think that once again there will be no changes, or under external manipulations they will be too turbulent, which will lead to new deaths and even greater stagnation of minds than now[9].

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There is no need to think that Russia is an exception and has its own way: I repeat, no, the rule here is the same. Look at the history of velvet and color revolutions and everything will become clear: no one but power has ever won. Therefore, today, when we have the opportunity to automate trust - **blockchain philosophy becomes an important element in the development of all mankind.**

Otherwise, we'll get, as I said in part one of this book[10], a society of controlled experimental slaves. Or we can get a decentralized community, which can't be fought with violence due to the dispersion, anonymity, and at the same time its openness for everyone.

"By understanding the information process underlying life, we begin to learn how to reprogram our biology in order to manage to put an end to illnesses, to achieve incredible growth of human capabilities and a noticeable extension of life expectancy. " And it's not just that the biological sciences have stepped to a new level. This technological revolution is characterized by the convergence and synergy of several large-scale technologies - namely nano-, bio-, IT, 3D-seals, artificial intelligence, new materials, and robotics.

But do we need this without an answer to three simple questions:

1. Where does (will) this lead?
2. Who benefits and needs it?
3. And the main thing: are there any alternatives?

The questions are simple - the answers are complex.

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[9] Actually, my guess was correct.
[10] Once again - https://www.litres.ru/vladimir-popov-7629101/

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Now I'll try to reflect the main idea briefly: I'll go back to the beginning and continue from the end.

The first lines that should draw your attention are sex, pleasure, pain, quick profit. This book is about something else - about thinking. About philosophy. About how it should be understood initially.

For the first time, I came across this science (about the universal) at the age of thirteen - that was an insanely monolithic work of I. Kant "Critique of Pure Reason": I was reading it for almost three months, trying to grasp even the superficial meaning at least, not to mention deep thoughts. The language was overloaded, complicated, but enticing at the same time.

Transcendence, synthetic categories, a priori and a posteriori - have forever determined the movements of my self-awareness and self-understanding.

The judgments concerning open systems and their advantages form the foundations of the blockchain philosophy.

But why do we need philosophy here anyway?

There are several reasons:

1. There is a great amount of books about the blockchain, future organizations, an open world where everything is accessible, and many people say that this is a new idea and some of them even say that this is just a **game** of human brains. But that's not true.
2. Over the past fifteen years, there has been written a lot about similar topics, but everything seemed scattered and unnecessary: now I can honestly say in which areas and why the issues discussed here will be useful specifically, for example, to you, my reader .
3. Finally, the life-long super task (not a goal, but a task) is to revive and perfect philosophy as the art of thinking and living. I think my book will help here.

So, what should you obtain after reading this book?

1. The understanding why today open systems are becoming so popular and what can this lead to?

2. The questions: what our role as mankind and man will be after the paradigm shift?
3. And, of course, a vision of what is already happening to the Earth.

It's impossible to answer all the questions in these two or three parts, that's why I answer them in other publications, which are mentioned above in the text.

And now, let's talk about open systems.

Essence of Open and Distributed Systems

Let's take, for example, a jaded problem: the chicken or the egg? In general, this aporia could only be set by the European civilization of analysis[11]. Essentially such a complex form of life by definition is a coitus of many processes.

Such an approach gave rise the negative side of sophistry, the role and purpose of which were originally different: here and now, this pseudoscience is gaining unthinkable spread on the Web. I hope this trend is understandable?

So, there is an egg: a dense essence - a shell, then a nutrient medium, then a proto-organism, which is placed in these components. To be more precise: "Imagine a raw egg: inside everything is liquid, alive and fluid. The egg has such a structure that it's almost impossible to crush it from the outside. Yes, you can smash it, that's easy. But to crush it in the fist - no way. " That's a little simplistic, but the main thing is that interaction with the world, even here, can't be called completely isolated: porous structures don't allow such a conclusion to be drawn.

The same concerns, say, caviar, where the absence of a shell doesn't mean isolation of a certain essence of life.

What's about humanity?

The mother is a common receptacle, then the inner shell, then - a life, a child. In this sense, the umbilical cord is the channel of communication of those to be born with the outside world.

That's obvious, isn't it?

Yes, but, for today, not many people think about it, and meanwhile there are fierce arguments about technologies and these basic conditions are forgotten: it's a paradox.

Now let's turn to the society.

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[11] More in "The Shadows of Tomorrow's Sun".

If you look back at history, you can see that the state is a young institution: but everybody's concerned about it. Before - there was military democracy. Before that - **very hazy descriptions like generally the most part of the history of mankind**.

Why's that?

Because the state is a closed entity: an unnatural entity.

It's due to its closeness, the state controls us - people: special services, bureaucracy, inaccessibility even of elected positions, etc. - all this allows public authorities to be not just dedicated, but detached from all others.

Somewhere, say, in the US / Switzerland, this is done most skillfully: with the the minimal introduction of decentralization (federalism); somewhere, like in Russia, China, and even North Korea this is made by rough strokes, but it's everywhere: from cool coasts of South Africa to the Canadian red forests.

Today the antagonism of closed and open systems reaches a powerful intensity, because the human tendencies and the essence of the state are parallel worlds.

Let's say, what does a person need to start a conversation?

He just starts talking.

What does a president need? A press conference, audience, etc. What needs a minor official? Set time, at least.

Do you inhale how different these approaches are and the very core of the relationship?

The NSA wants, according to Snowden's statements, everyone to be open to them as a palm before a fortune-teller, but is the Agency ready for the reverse process? No.

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But it's not just about interaction, but the structure also: the state can't stand distributed systems, because it wants monopoly of:

- power,
- money,

- even childbirth.

Why does the Chinese Communist Party decide who has the right to be born and who's not?[12] Why is the Russian government manipulating the birth at the expense of social stratification and all-permissible abortions? What about miserable pensions that predetermine our life in old age, not less than the mother's ignorance before meeting the almighty spiral?[13]

Yes, this is a hummer-like-philosophy: but if Nietzsche used an allegory to speak about power, then I have to use the simplicity of this percussion instrument in addition.

Of course, there are no absolutely centralized and distributed systems, except for locales, but nevertheless the goal of public authority is a single point. The division into the executive, legislative and judicial branches - that's just a form, the content is that each of these branches is separated from the people and acts for the common purpose - governance. Suppression, to be exact.

Therefore, let's talk briefly about the classification, which draws the edges, but doesn't reveal the subject:

1. Centralized systems - the construction is based on the power of one element in their structure;
2. Decentralized systems - in essence, there are systems where centralization is often dispersed between several elements, but the main component (the hierarchy) is preserved.
3. Distributed systems - don't have hierarchy and the connections are established according to the effectiveness of interaction and not on the basis of adopted regulations, protocol, etc.

In this case, I intentionally don't give the details right now, because they will follow later in this book. In the meantime, let's talk about the aspects of our life that open systems can change.

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First, open systems should make us more honest. In fact, a lie is fear: the fear that responsibility will fall on us. Sometimes a lie is a habit formed in childhood, sometimes a necessity, and often - an inability to correctly tell about one's thoughts.

[12] And again, see "The Shadows of Tomorrow's Sun".
[13] That’s perfectly true again.

Each of us can be decomposed into at least three components:

1. Identification;
2. Reputation;
3. Interaction.

I'll explain.

Identification allows to verify a particular subject. Today a passport plays this role: by forging this document, you can try on the identity of another person. Plastic surgery, human testimony, makeup, and much more - without the appropriate seal, stamp and set of pages it's just nothing.

Reputation. We've talked about it earlier.

Interaction is something that we are getting rid of today: we use the monitors of smartphones and hoverboards, losing the connection of our muscles to the outer world; we use the Internet, losing social ties, etc. Therefore, it's important to take into account that the blockchain has not only ontological, but epistemological and even epistemological grounds for perception and development.

Let's take a step back and consolidate our knowledge

As always, I prefer syncopated delivery of material: it allows me to be focused and on the lookout.

Let's use a film production method - the repetition: today takes place the process of development of the blockchain technology, but the blockchain is not just a technology, but also a system of values and views. Bitcoin appeared thanks to the principal differences in the decentralized approach as a confrontation with the classical bank system after the 2008 crisis.

As you know, the blockchain is based on the following assumptions:

1. Anonymity;
2. Openness;
3. Automation of trust due to cryptography;
4. Distributedness (decentralization as an initial condition) as a condition of perspective.

While development of these points and improvement of the initial conditions of the Bitcoin network, the first forks appeared: LiteCoin was aimed at simplifying the mining and transaction speed, Dash was for anonymity, Nem for greater decentralization and creating personal blockchains, etc.

But now the questions are even tougher: the strongest antagonism of modern times is revealed - the struggle of the state authorities to tighten the requirements for monitoring the actions of citizens (it's enough to recall the Chinese credit rating of citizens or the surveillance of the NSA), and the citizens' desire to resist this system by all possible legal means, including the right to secrecy of communication, correspondence, etc.

Anonymity of all kinds

Dash, Zcash, Monero and many more smaller cryptocoins allow transactions to be anonymous. This point has at least two components: positive and negative.

The positive aspect - anonymity can provide a secret of communication, and, in turn, it shields society from unnecessary knowledge of the subject.

The negative aspect - everybody knows it: the possibility of sponsoring terrorism, the legalization of criminal proceeds, and other indigestible things for an ordinary person, as described, for example, in the Law of Russian Federation No. 115 on Counteraction ... and FATF standards.

And yet today, in a society of total mobilization, of total chipping actually (with the help of smartphones and IoT-devices), the right to anonymity for an increasing number of people becomes a priority.

Suffice it to recall Assange and Snowden to understand what we talking about.

Therefore, the BPh is for strict observance of this freedom. But what about the disadvantages described above?

This requires a system of global reputation, which won't be based on the current, consumer approach, when it's based on some actions of the subject evaluation. No, **reputation is a by-product of activity**, which should be calculated from three components:

1. Subjective evaluation by other people (likes, points, etc.): no more than ⅓;
2. The time of holding a certain status (professional experience, the creation time of some product, etc.): no more than ⅓;
3. Quantitative activity indicators (published books, forged gates, etc): no more than ⅓.

Today, the systems are created virtually detached from this scheme: yes, there are temporary solutions, like, say, an internal rating on LocalBitcoins or Linkedin (both are blocked in Russia: that is, the rating can no longer be called global), but all these are the figures of certain services, which, besides, if desired, you can earn intentionally by making positive transactions within these systems.

This is especially well seen on social networks, where millions of subscribers and likes have been meaningless long ago. That's why subjective evaluation gets no more than one-third: even this component is falsified, there will be visible distortion with two others and vice versa.

In addition, there is no unified evaluation standard, i.e. an elementary unit of reputation. But that's our future.

Don't forget that the future is already here - due to the automation of trust, the private sector has already been able to optimize business processes: "since the beginning of 2017, Sberbank and M.Video have been using blockchain in factoring operations:

if earlier the information exchange within each transaction was carried out through letters and phone calls and took up to three days, now this time has been reduced to several hours." Globally, it's Amazon, Google, and Ali ...

For a reason, we see the acceleration of integration processes here: R3, EEA, Hyperledger, Crypto Valley, and others, which allows us to optimize the process of creating standards and evolutionary principles of the blockchain technology, and what's most important - to link it with practice.

Openness

The present-day system of "state-society" interaction is based on rather strange and archaic principles, when the activity of political power is maximally closed (at the expense of special power structures, the use of know-how in data protection, etc.), and the society constantly reveals more and more information about itself.

To be more precise, the information which becomes governmentally useful and meaningful.

This is why major projects are now focused on big data and machine learning[14], which together allow us to identify even the most non-obvious needs of society and specific, significant individuals at times.

In order to reveal the activity of public authorities through the blockchain, there are already many opportunities:

1. Irreversible voting by means of p2p-systems, which are more difficult to falsify than centralized proprietary systems;
2. State registers: partially implemented by BitFury in Georgia and Ukraine;
3. Notarial deeds without a notary: something similar is being developed by Emercoin, and such an opportunity is embedded in smart contracts by default, as programmers say.

There are many other directions, but the essence is similar. It's more important to understand that in order to implement such schemes, the blockchain needs at least the following upgrades:

1. Reliability (verifiability): there are different solutions, while Nem looks the most interesting and has a developed system of trust to nodes when compromised nodes don't participate in the evaluation of transactions.

[14] Data-mining is a topic of one more big study.

2. Speed: that's why the Lightning network is developing today, a huge number of Bitcoin forks are born (from LiteCoin to Bitcoin Cash & Gold) as well as blockchain free solutions (Tangle, Biteball, and the like).
3. Mining: usually this aspect is a part of the speed (hence the origin of non-PoW consensuses, and only DPoS feels victorious among others), but I would like to elaborate on it separately.

The fact is that mining today has a number of obvious problems:

1. Often, it doesn't carry any meaningful benefit, except the operational maintenance of some network and confirmation of transactions of the latter. Because of this, thousands and thousands of machines actually violate what humanity has been fighting for the past decades: the normalization of the environment. The so-called "green" mining is an inadequate solution. Therefore, I see the future in the following directions:
    a. **Social mining** - i.e. creation of crypto-assets at the expense of the actions of the subject or communities (Bitrad.io - listening to the radio stream, Bitwalking - money for walking, etc.);
    b. **Mobile mining** - use of unlimited resources of mobile networks, devices and the optimization of fair distribution of computing power due to this;
    c. **Useful mining** - data-mining (search for new and useful information in texts); scientific mining (Foldingcoin is close to this now); supercomputers on demand (Sonm, Golem, and Ethereum itself, but upgraded);
2. Mining today in most cases leads to centralization: the brightest example is Bitcoin, which in fact is controlled by Chinese miners (however, this is not about the nation, this is about the geography). And in this sense, all the other consensus systems: PoS, DPoS, LPoS, etc. don't solve the main problem. Seems like it can be eliminated due to socialization and mobilization, but for this, everyone must understand at least three important phenomena:

    a. Theories of private money: there are already over 1,500 today, according to Coinmarketcap, but there will be hundreds and thousands times more of them;
    b. Decentralization principles: Lalou in his "Reinventing Organizations" described a good mechanism of decentralized control;
    c. Blockchain philosophy, which actually leads to a global change in the existing paradigm of consumption, and, first of all, teaches us to share and trust, not to take away and defend.

3. Finally, the two problems described above give rise to the main one: mining itself provides the protection of blockchain networks, and therefore misinterpretation of its importance and significance will lead (already leads) to the creation of the bank system 2.0, which will be implemented through the holding of the nodes of some blockchain grid: today, the cost can reach hundreds of thousands of dollars (look at Waves, Dash, Nem). And this is the main contradiction in the development of technology and the BPh.

The main thing to think about is that the isolation of technology from social principles has never led to positive effects: the same problems of ecology are generated first of all by careless attitude towards production and all its stages - from design to liquidation. To understand what it's about - just take a look at the environmental situation of improperly designed industries, say, in Krasnoyarsk or the Urals. But this isn't just Russia's problem: it's a world's problem - no wonder **environmental quotas become the currency of international relations.**

The same trends can be identified in the field of nuclear energy (Chernobyl and Fukushima), space flights (orbital pollution), agriculture (first of all, genetic engineering and the use of chemicals) - in any sphere of human activity.

The blockchain should and can make any activity transparent on the one hand, and on the other - computable: each researcher is able to evaluate the influence of one or another factor on the environment, which is becoming more aggressive under the pressure of anthropological activity.

So far, few people realize this possibility and all are actually focusing on more "terrestrial" spheres: finance, banking, insurance and the creation of the ecosystem for blockchain solutions. In this case, explicitly centralized systems become the favorites: Ripple, Ethereum, and the like[15].

But this disbalance means that we can't speak about any development of blockchain philosophy, and we won't just remain at the level of consumers, but also hypertrophy these views to such an extent that in 5-10 years there will actually be no closed ecosystems on the Planet, such as those in Iceland and on the plateau of Putorana, Lake Baikal, and even Antarctica[16].

[15] Will there be TON among them is still not clear.
[16] By the way: one can clearly see through these examples how semi-open systems differ from absolutely closed ones, as, say, New York or Dubai.

Automating trust

We've talked about this aspect earlier, but I would like to add some significant points.

First, the states, which don't have the necessary immunity from the power influence of the United States and other countries (Russia, China, India in the first place), have already realized the importance of cryptocurrency and the blockchain technology: Japan, Switzerland and Estonia are in the forefront. Automation of trust allows not only to create something inside the country, but also directly influences modifications within the international community: gold and currency reserves, the dollar (widespread, but unsecured), insane state debts - they go into the background and leave room for maneuver.

Second, the institution of the state starts to rebuild itself into a special set of services that can be used on demand: there is no one to fight with in p2p-communities, it's meaningless to destroy p2p-systems, and it's impossible to prohibit p2p-currencies.

That is why the described mechanism to automate registries, legal services, etc is just the beginning: further the states themselves can optimize the bureaucratic apparatus and use it as ad hoc solutions on demand.

Third, the automation of trust will lead to the imminent loss of many professions[17]: mankind has already received something similar after the Industrial Revolution when the service sector and intellectual development not just appeared, but actually took leading position (now the world's leading companies - Google, IBM , Microsoft, Facebook, Alibaba are essentially services, and, of course, the top pedestal is occupied by finances and banks).

Lawyers (not analysts), accountants and financiers, drivers and copywriters, average designers and even cooks, may go into oblivion after perfecting the bundle "blockchain + artificial intelligence + smart contracts + big data + robotics."

So what will be left for man?

Creativity and work[18]: the kind of work where the machines are weak. First of all, this is Cosmos, because there are too many unobvious and new phenomena. The second - the improvement of the inner world. The third - self-development in a broad sense.

[17] "The Shadows of Tomorrow's Sun" just gives more details on that.
[18] And the irrational too.

But first we need to understand what the trust automation alone won't give us, even in perspective. I'll give some examples:

1. The blockchain was supposed to kill the mediators[19], but instead the development of the technology without philosophical rethinking led to their growth: exchanges, oracles, technical platforms, and so on.
2. Bitcoin's generated the automation of transaction trust, but has this deprived fraudsters of the opportunity to conduct unsecured ICOs, collect millions with trivial phishing and deceive gullible citizens with trivial and even primitive schemes?
3. Finally, even the big players: first of all The DAO & Ethereum, Polkadot, EOS, MtGox, NiceHash still abuse trust in one form or another.

Therefore, in order to automate trust, it's necessary to develop its initial conditions and to train everyone to follow them: "otherwise we risk never to get out of the vicious circle of unsecured promises and risk accounting systems, but not opportunities."

Distribution as Prospect

It seems that I've already said everything before, the only thing that I'll note separately is the need to educate everyone so that the distribution or decentralization has a synergistic effect.

As Bitcoin's 9 year development experience has shown and my own experience since 2011: the market cannot create itself if each of its participants doesn't have the necessary knowledge of self-organization principles.

That is why the first wave of ICO was aimed at building the structure of blockchain solutions, and the second one - more at the real sector of economy and its new digitization, i.e. tokenization.

You can make this mechanism work in the following ways:

1. Training (courses, trainings, university programs, etc.);
2. Enlightenment (books, articles, videos);
3. Self-learning: if you know something, tell the other.

This leads to a closed system where each element is both an object of cognition and a subject of perception, i.e. a kind of a node forming unified world blockchain.

[19] I described that in detail in the third part of the First ICO Book - http://itsynergis.ru/ico-book-part-iii

Vernadsky describing the Noosphere said something similar and that was very correct and accurate.

Quantum Blockchain and Other Trends of the Years to Come

Perhaps, I'll conclude with the description of the most interesting prospects for the blockchain technology development and their correlation with philosophical principles.

The first thing that is talked about a lot is the creation of a quantum computer and the possible "cracking" of cryptocurrencies. In fact, there are a number of aspects that are neglected:

1. The decoherence phenomenon for many years (since the 1980s) hasn't allowed us to create a 100-qubit computer at least. Recently, there have been a lot of statements from different groups of researchers that they have a several dozen qubits computer, but there is still no verified open information.
2. Don't forget that a quantum computer is now being developed mainly by states (USA, Japan, Russia, and others), or large corporations: they are unlikely to be interested in any kind of "cracking", especially, that IBM itself advocates for the development of blockchain solutions. In addition, there are much more "tasty" systems to access: from special services archives to bank systems[20].
3. Also, don't forget that there is quantum cryptography, which means, purely theoretically, any blockchain can get a quantum hardfork and thereby become invulnerable to the new computer miracle. In addition, the QC's capabilities are clearly exaggerated by media: for example, a QC is no good for cracking even SHA-256 by direct brute force.

But in fact, a quantum computer has a much more global problem: we try to create it according to the canons of classical physics and technology, whereas any quantum system (because of the connection of elementary particles, the principle of uncertainty, etc.) is actually a decentralized or even distributed system. And in this sense, as long as we refer the study of consciousness through the laws of quantum physics to the borderline scientific branches, it's not necessary even to talk about any meaningful breakthroughs.

In addition, the consequence of this thesis is the fact that a QC will be close to the human brain level, so there are many ethical and even psychological problems of AI

[20] The Panama Papers are the best proof.

that are being discussed mainly by the specialists, not by the world community unfortunately.

The power of the QC, the already existing gradation of people into those who own cryptocurrency assets and those who don't, the growth of the division into the intellectual elite and all the others, and the dependence of all and everyone on the technological component will lead the world society to inevitable antagonism, which in turn will give rise to problems of a planetary scale. Therefore, today we must do the main thing: solve these problems in their infancy.

And there is only one way to do this: the development of the forgotten and inert science called philosophy, because it allows to perceive the world not analytically, but synthetically, and thereby to develop heuristic models, so important at the time of the genesis of phenomena that were not previously even figments of imagination for the overwhelming majority of people.

The word "hype" has become determinant here and now for the blockchain industry, but almost nobody cares about what's to come: however, there are those who really care about that, but in general it seems that they don't exist.

This small book is about what's to come and what we have today, apart from notorious capitalization figures, growth rates, countless coins, tokens, and other digital assets, which names most people just don't remember.

Why philosophy?

Because our talk will be about the principles, about the essence of the blockchain, not the technological aspect, but something much more significant: that elusive aspect that makes us not just a biological species, not only a social creature, but also a matter of the highest order of organization, which now we cease to call chaos, but that fact hasn't ceased to be true.

Shall we proceed?

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For this purpose we need to solve a number of issues which we will try to study in the third part:

Speed, speed, and speed again: we have Lightning Network today, but it's just the beginning, the transition stage. Next: there will be the blockchain - that's excellent,

but there are also non-blockchain decentralized systems: Tangle, Byteball, HashGraf...

How about DeepNet 2.0?

1. global reputation system - its core;
2. burn-coin - its basic unit of account;
3. the real sector inside.

And what about the consensus: Proof-of-mobile, proof-of-action, proof-of-reputation?

And this is just the surface: then go distributed legal entities, full DEX-like exchanges, closed exchangers on public protocols (email and more) ...

And even further: we'll be deprived (?) of the transactional function; only the pledge and credit (mind you, pseudo-credit) functions will be important: therefore, there are a lot of questions, and it's extremely difficult for me alone to answer them.

Conclusion

The main difference from the previous part is the method of circular persuasion when the thesis comes from different aspects, each of which is self-sufficient, but at the same time complements the overall picture due to a specific accent, shade, or timbre.

The third part will be devoted to insane ideas that are implemented today or can be introduced tomorrow, as well as another important problem - the problem of history rethinking: it's the humanitarian aspect that is less and less affected today, while it contains the greatest potential.

However, you can argue with that: the reader in this book is also the writer like me. It just cannot be otherwise.

List of useful links and books

Before I start, let me make two remarks:

- This list is absolutely subjective because I'll publish the full list on my blog https://golos.io/@itsynergis.
- It's not exactly complete: now there is no problem to make something exhaustive and self-sufficient, but there is just a necessity to mark the development vector.

Now, here's the list:

- Bitcoin White Paper- https://bitcoin.org/bitcoin.pdf - this is how blockchain was born, as we know it now: short, clear, but so spacious for thoughts that after ten years these nine text pages (not counting the bibliography) haven't become obsolete, on the contrary they are still actual due to the development of technical and ideological principles of Bitcoin. However, it's much better with the first, than with the second.
- “Digital Gold” is one of the first and certainly the first full-fledged book about the cryptocurrency and its future: our future, my reader. It's worth to understand it, then you can watch the film "Trust Disrupted: Bitcoin and the Blockchain " https://www.youtube.com/watch?v=m1sBurdHCNo
- “Reinventing Organizations” - is just about business with the decentralized approach.
- "Anarchy: evolution without violence" - https://www.litres.ru/vladimir-popov-7629101/anarhiya-evoluciya-bez-nasiliya/, a book that was hard to write, but it means a lot to me personally.
- The first part of Blockchain Philosophy - https://www.litres.ru/vladimir-popov-7629101/blokcheyn-filosofiya-chast-i/

Want more? Search by tags #menaskop #менаскоп #itsynergis #synergis and write to our chat - t.me/synergis!

Thanks from/to the author

This part came out in very, very constrained circumstances, so first of all - thanks to the Synergis team and all the enthusiasts associated with it for their support in difficult times.

I also thank the anarchists from all the regions where I've been: you are the living examples of the fact that our common idea is not a fiction, not a utopia, but a working tool of the working people all over the world.

If you liked the second part, you can:

1. Buy and read the first one - https://www.litres.ru/vladimir-popov-7629101/blokcheyn-filosofiya-chast-i/;
2. Thank the author:
    a. 0xd8A898657EC6EbCa6f7673487b52CeFc78b60bC3 - ETH;
    b. 1Jed5MVmWw2rszTLvdF7LNEJPLeucvbRev - Bitcoin;
    c. The rest - see par.3
3. Write a review on **menaskop** (vk, fb, telegram, gmail).

Thank you for reading anyway and

Good!

Until the third part.