

# FUTURE OF THE SILICON VALLEY, OUR CULTURE, AND EDUCATION

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## Анотация:

Образованието прави по-голяма разлика между човек и човека, отколкото природата е постигнала между човека и животното.

Плодът на образованието е разбирателството.

*Education makes a greater difference between man and man, than nature has made between man and brute.*

*John Adams.*

*Fruit of education is Understanding.*

Though Justice is loudly proclaimed, injustice is applied daily, and fairness may never have existed in this world. We take this crime for granted. The innocent are jailed and the guilty are pardoned, while the magistrates of our society remain irresponsible. True talent is impoverished, genius ignored; those without vision are the decided leaders, as the intelligent remain unemployed, the ignorant enforce the status quo. William Shakespeare wrote about it about 400 years ago in his Sonnet 66:

*Tired with all these, for restful death I cry,  
As to behold desert a beggar born,  
And needy nothing trimm'd in jollity,  
And purest faith unhappily forsworn,  
And gilded honour shamefully misplac'd,  
And maiden virtue rudely strumpeted,  
And right perfection wrongfully disgrac'd,  
And strength by limping sway disabled  
And art made tongue-tied by authority,  
And folly, doctor-like, controlling skill,  
And simple truth miscall'd simplicity,  
And captive good attending captain ill:  
Tir'd with all these, from these would I be gone,  
Save that, to die, I leave my love alone.*

250 years ago, the late Pierre-Jean de Beranger expressed a similar idea.

*Lord If the truth is holy  
The world of the road does not know how to find  
Honour to the madman who cast  
The dream of mankind is golden*

Armies of astrologists, future tellers, politicians, media moguls bring sweet dreams to the public. Benighted millions, bright mind is hard to find. Modern times are no better in this sense, rather other way around. Among the professional elite 80% are nonentities, 80% of firms share unearned success, 80% of talented

people fail to succeed, 80% of those who have to be in jail are not, 80% of innocents are jailed, etc. This became a classic scheme. Only connections, money and chance matter. People are losing their stimulus for work, education and self-improvement. From there stems social apathy, depression, alcoholism, drug addiction, terrorism, wars.

Why does this happen? Those who are supposed to make decisions have no honed analytical skills. This was always in the past. Will it continue in the future? Yes. More importantly, the situation deteriorates. The amount of information is increasing; the classical education level (the only assistant in this labyrinth) is going down. Mysticism and commercialization overlay everything. No chances left? No! Some counter mechanisms have already appeared, but we do not notice or use them yet.

Economy is the major power in this world. It is being governed not by presidents, politicians or big business, but by customers, patrons, investors and shareholders. It is a general rule that the customer is always right. He is satisfying his needs. How he is undertaking it is his own predicament... Yes and no. The customer is fully responsible for his decisions. He designs stability, perspectives, the future of the world, of our children, culture, science, and the general quality of life. Business and media in turn influence the customer and his decisions. If the customer decisions are more rational, prosperity will increase substantially without additional investments.

Decision-making is the major part of human activity. Though most operations in industrialized countries are computerized and algorithms are everywhere, one may assume that we don't need thinking any more. This is not so.

#### THE PROBLEM PROPER

Where are we going? Most people try to achieve power, glory and wealth to implement their right to become number one. This gives them the right to be the first to get commodities, friends, occupations, etc. This comes from our forefathers.

Albeit, the world in which we live has changed. We don't acquire information from explorers any longer. Our generation was born in the radio, telephone, plane, and computer age. Every minute we get tons of information. Nowadays we not only instantaneously know what is going on in different countries and what is produced there, but get it in diluvia abundance. These days it is much more important not to be the first in choosing something but to be the first in making right decisions in this ocean of possibilities. We haven't adjusted ourselves to the first technological revolution inside which we were born, yet we are facing already a new one.

Where should we go?

Atavistic desire to grab out a piece from your neighbour still prevails in our mind over the reasonable question regarding the necessity of possessing that piece when there are so many tempting offerings around us. These days the point is apparently complicated by the fact that we are already within the new technical revolution equal to the one with radios, telephones and planes. We have the Internet, which produces oceans of information. We have to find the way not to get sunk in this new informational ocean. This means that we have to find right resolutions and make right choices out of an increased number of variants. Many of our decisions are far from the best. Lack of time and experience, subjectivity, the low speed and power of our own analytical mechanism do not allow us to reach perfection, leaving us though to hope for it in the future. Nobody can help us in our everyday problems. Sometimes the price of such help exceeds the price of the ideal resolution. As a result, we got used, accustomed to the far from the best resolutions. Sometimes we realize that. Sometimes we hope to be more successful next time. More often we don't know what we are doing and continue to live with this non-perfect decisions which being a part of the mankind experience, misleads us and creates new misleading with those around us.

Does a man need a cerebral brain?

It's not often that we must analyze a situation, and make decisions. The real necessity to do this is one of many myths covering the so-called public opinion of civilized nations.

A vast number of people who cannot think are perfectly adapted in modern society. To achieve this, it's enough to imitate certain views more or less parodying the public opinion. If the imitation is widely supported by public opinion, one can look like a smart person, lacking individual logic. What is going to happen if he still must make his own decisions? (This may never happen!) One may discuss banalities both at work and at home and pose as a smart person without much difficulty. At the same time there is a field where the imitators are losing. This happens each day when they become customers. Sometimes their defeat passes them by unnoticed. To buy merchandise only because you have nothing else to do, just burns money. This circumstance differs from the purchase of prestigious items, which are in vogue today, but applies to items that do not depend upon public opinion. There are plenty of such items, and we are supposed to make choice of our own. Being smart only by imitating and following somebody else's preferences is not right in this instance. Realizing one's personal inability to make right decisions, different people develop different strategies. Intellectually oriented persons try to postpone the decision for a detailed analysis of the situation. They get the reputation of "weak intelligencia". Those who do not like such a reputation make fast decisions and justify them with all means possible. Sometimes those who make fast decisions still experience their weakness, but do not show it.

Brain of the ancient man as compared to brain of the modern man

Could it mean that if the nature didn't supply the human brain with such cognitive facility, he doesn't need it? Well, everything definitely worked well when one of the major problems of our ancestors faced was hunting. Then civilization interfered. Several hundred years ago people didn't even know about some countries, isles and continents existence. Nowadays they get immediate information about the price on millions of products all over the world and want to use it effectively. The brain of an ancient against modern man comparison amazes many people. Why did the ancient man need a brain of nearly the same size? He didn't know calculus, he didn't have our problems, he didn't process such a level of information. Stop. Maybe because of this he used to spend as much time for relatively simple tasks as we spend for ours. He didn't realize that the abilities of his brain could be used better using contemporary methods of getting knowledge and education. Maybe we don't use all resources yet and can improve our possibilities?

Need for a system. What problems do we have?

Life of homo sapiens consists of many small and big problems, analysis, evaluations, choices and decisions. Many times a day we make many different decisions about spending money, time, what to choose, whom to favour, how to reach this or that destination, to go to the gas station now or later, to go now or in five minutes, to go this way or the other, to park here or there, to pass on the yellow light or wait. Making these decisions is a major part of this life. We do not often consider such decisions crucially important. At the same time, to push a break close enough to a crossroad we are losing seconds and risk a collision with another car following us. On the other hand, accelerating when we are close enough to the crossroad puts us equally at risk. Developing more speed when we are far from the crossroad we are at risk of getting a ticket or causing an accident. Making a decision is to evaluate in seconds the distance to the crossroad, our car's speed, the speed of the car behind us, and police presence or absence. A major role is played by our reminiscences regarding what a ticket or an accident resulted in the similar previous situation. This is kind of a normal human state to face problems and make decisions. Our standards of living, happiness, success, health, welfare, security and many other things depend upon the quality of our decisions. To make a right decision, to make a right choice out of many possible variants, when each of them have differently measured and interconnected factors, is not easy at all. Regretfully, we come across purely positive or purely negative variants very rarely (and if we do not, problem exists). In philosophy they call it the Law of Unity and Contradiction.

How are we reasoning? It is understandable that in order to choose the best variant from several possibilities one is supposed to measure the quality of all of them. Mankind has acquired enough experience in this operation. Then one has to measure relations between the parts. Here we lack proper tools. Then one has to calculate the value of each variant, compare them and choose the best. How do we do that? We do that by manipulating a certain number of accurately selected parameters, resting our conclusions on our experience, knowledge, (intuition or its lack), common sense, and right or wrong personal opinion. (According to Elizabeth B. Browning, most of the people acquire their own opinion as if kids learn simple rules of multiplying, by repetition.) We do that using certain biased opinions as well. The fewer analytical skills, the more is the number and strength of biased points of views. After we remove without analyzing some variants, we establish certain parameters. For example, a man says to himself, “I can pay for this car not more than \$10.000.” If we offer to him a car, which is twice as good for \$100 more, he will definitely agree. “No”, say we, “You will never see it. You have already rejected it without consideration by your parameter selection! And if we take the \$10,500 car price limit, you will never see a better car for \$10,510, etc.” One of the most powerful myths is the one stating that the more expensive the merchandize is the better is its quality. In those areas where we are experts, we determine the quality without stressing price. A modern man buys hundreds of items and services. Having no reliable criteria, we trust the manufacturer and the seller. The manufacturer is oriented to the market, which is to us. The evil circle follows, where labor, money and both sides satisfaction are lost. Having repeated a mistake many times, having missed a good opportunity, having paid for unnecessary improvements and manufacturers ambitions, we make our mistake stronger, start to call it experience, and loose a chance to correct it in the future. Sad. Why does this happen? This happens because we must look for the optimum instead of establishing limits. We have no right tool. All known databases are focused to establishing limits. Lack of effective criteria begets false ones. Often the merchandise sales price is being defined by its cost. This is not right because the customer should pay for the quality of a product only, and only at a reasonable price. The problem is how to define those.

How do we make choice?

The biggest group of the people on the planet is those who are supposed to make any choice – customers, patrons and clients. If we do not follow commercials or somebody’s opinion, we must form our own opinion. How can we do it? Having come to the dealership and viewed a dozen cars, we ask the dealer about design and mechanical features of the cars. Having no chance to digest all the given information, we finally make a decision. Sometimes we choose a red car because our wife likes it or because our neighbor was happy with a red car. Is the right choice so important? Look carefully around. Are all things around you so necessary for you? Do you use all your possessions 100% of the time? It is doubtful if you use half of them 50% of the time. Those who do not agree with that, most likely have low level of self-criticism. If we knew on time about these or those certain goods and their qualities, we would not have had many problems and the possibility to make a right choice would palpably increase our standard of living. Normally we do not dream about too many things and would like to be 2-3 time richer than we are. This possibility is right under our feet.

The system of contemporary supermarkets most likely is getting old, which can be seen from companies’ new activity selling goods without intermediate assistance. They noticed that the list of goods doubles every ten years, people have less time to go shopping, and counter sales people professionalism leave much more to be desired. From all this they should conclude that their time has come. At the same time, reasonable people realize that in the computer age, the time of street vendors will hardly come back.

Under democracy, the right merchandise choice has also a civil importance. To make a right choice of this kind is essential to make a right presidential choice. The President of a democratic country may not affect its fate as much as companies’ presidents do. By buying shoddy goods we support shoddy companies, letting the best ones loose their business. The history of mankind is full of examples when weak decisions dominate over the strong ones. Sometimes it even looks like an “evil law”. Sometimes those specialists

who realize the preferences of the best decisions, lose to the uneducated masses of people. It's interesting to know that among the richest people, the uneducated majority still prevails. Many shoddy companies do not care about their customers (which is justified, as long as those customers do not take care of themselves) but at the same time they seem prosper in every respect.

**PROBLEM RESOLUTION IN MODERN TIME.** What a computer can do? The modern world has the most wonderful thing ever created – the computer, which is not only a data storage system, but a calculating devise capable of analyzing information. Computer use two basically different systems: calculating and algorithmic. The algorithmic system copies the methods of human brain functioning, and in many instances is considered more effective. At the same time for a great many problems related to multifactor occurrences, a calculative method is surely stronger. The abilities of a man to use this method are different and depend both on his natural background and education. No man's ability can conquer the computer's ability. People with a low level of calculating skills tend to dislike it. From this point intuition appears. Intuitive actions happen resolving some problems, we try to find similar precedents in our memory and try to reach a similar resolution. The major thing is that in this case we use an analogue algorithm not according to criteria, but by seemingly corresponding points. Because the number of these points is not big (2 or 4), their relevancy may be imagined, the number of criteria could be restricted by our personal experience and quality of our memory. Intuitive solutions often do not differ from random ones. Nobody dreams about building a plane, a ship, a car or a computer without engineer and calculations. At the same time we have no or little problem to choose, evaluate or buy goods without analysis. Americans even don't indicate technical data of the merchandize, because nobody is interested or understands what it means. Maybe it is not a great disaster for the country, but industry coddles this tendency by transferring technical categories into widely understandable consumers' categories.

#### IS MAN'S BRAIN A SAMPLE TO WHICH COMPUTER SHOULD AIM?

Let's take a simple example. Intelligent people always realized and said that the idea of a chess game is not in moves calculations, but in understanding the basic things, the positional perception, the intuition, etc. Nowadays, when computers did not become smarter, but got the ability to calculate better and defeated the chess world champion, even the best chess players have no doubt that total computer victory is just a matter of time. What does it prove? It proves that all ideas about genius envision no value in an artists' soul, when compared with good calculation. It is worth to note that the decision which takes Kasparov a second, requires from a chess novice several years without any positive result guaranteed. A year is 30 million times longer than a second.

Yes, the man's brain works according to an analogue method. Does it mean that it is more effective than a calculation method? A man tends to answer this question in the affirmative. What is it based upon? Maybe on the self greatness mania based on the utilization of the same analogue method? Contemporary computer developers tend to push it close to the human's brain. We are charmed by our achievements, and make them public. It would be funny if car designers went along a similar road. In this case a car would have legs, could move in the mountains, climb the stairs. But we have cars with wheels and they require highways to travel eighty miles per hour with passengers and cargo inside. Thank god that the first car designers didn't try to reproduce humans' abilities in cars.

Giant information is now available from Internet, but its analysis is most important.

The biggest tech companies – Google, Facebook, Amazon, etc., make a great difference, cardinally change the world. But the next generation will dominate the Future, if they will build in and use analytic tool.

The tool allows us to analyze, classify information, make rational decisions, rationally use resources (financial, natural, human, education, etc.), which was and remains the most desired goal of almost all applied sciences, making an extra huge contribution to the science, economics, education, culture, politics,

determining a positive impact on mentality, economics, positive transformation of the world, which was aimed at the thoughts and efforts of the best representatives of mankind at all times.



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