An

ESSAY

on the

PERCEIVED VALUE OF OUR FUTURE

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Introduction

For most people who live in the, so called, developed parts of the world, like us, the outlook of the future might seem bright and satisfying. In the past few decades the world has significantly changed, for better, as it might seem to us. Well I am not so sure about if the direction of the change was, is or will be that positive. I decided to write on the subject of the value of the future because I like thinking about it and putting information, I acquire from various resources, into context, as everyone does, however I would like to note that I am no specialist in this area, nor have I a "patent on truth", quite the opposite is true. I am wrong a lot. And hopefully, time will show that I was wrong in many things I wrote on following pages as well.

Progress and its price

Ever since the Neolithic revolution (Šmajs, Binka and Rolný, 2012, p. 46) our species have been trying to reconstruct the world around them to suit their needs. Their needs of security, food, socialization, pleasure or any other. It is important to remember that satisfying any of them always comes with consumption of resources and those are scarce. It does not matter whether we chose to see the scarcity of a resource, any resource, or we chose not to look and consider some things to be redundant. But is anything redundant? And to what extent? To whom and from whose perspective? In my opinion to change the redundancy of something means to change an ecosystem it is part of. And to do that from a position of a mere human, one would have to have satisfactory amount of information about all the relevant effects of such change. We rarely have enough information about the long term effect of harnessing resources the earth "provides" us with. That leads to shortsighted exploitation of those resources. Therefore the consumption comes at a price, which is often quite high, but without the information we cannot say how high.

The consumption, however, is not static. It evolves, ideally, through progress. And progress thus needs consumption to fuel it. The real price of progress therefore cannot be expressed in financial terms, or in terms of time, or any concept of price currently available by language,

and therefore also to think about. That is because our ability to think is closely bound to our language. The impotence in evaluating the price required to pay for the progress is based on our irresponsibility, lack of information or on uncertainty about the future. And which is more there is no sufficient compensation for any kind of permanent deformation. There is just a need to keep looking for a way to deal with it in the future.

Value to the donor

As dramatically and pessimistically as it might sound, I think it is important to consider that the next generations of people, or by the pace of technology development even some of us, might face a question, whether the price paid to get where we are going to be, was worth the value received. Here I would like to quote Mr. Rory Sutherland who, I think, described the true nature of the word value very well: "The value of the thing is not just proportionate to the value for the recipient it also is affected by the sacrificial cost to the donor. (...) It isn't just about the benefit to the recipient, it's also about the cost to the donor." So who is the real donor in a relationship from which humans seem to be getting quite a nice gain? Or should the right question stand: Are we able to identify who the donor is? These times when debt in Europe and USA seems to be an issue, we hear a lot about a burden we levy on future generations by indebting todays institutions. An analogy to it might be seen with the exploitation of natural resources. With a difference, that is, debt can be easily erased, by inflation, default, or other means, as it is just a term developed by people, and the only thing holding us back from doing so are the people who would be unsatisfied with such a solution. The difference is that if we consume all of the resources now and leave a mess behind, there will be no way back and nobody really to be unsatisfied. My opinion is based on a fact that resources we use to fuel the progress are exhaustible. And by using them we, most of the time, change their nature. We transform plants and animals that had been dead for millions of years into electricity, fumes, plastic and medication; we turn iron, stone and sand into buildings, which we build on a place formerly occupied by vegetation, now no longer suitable for such natural means; we exploit microorganisms in soil to grow trees to transform them to paper and flush them into rivers and so on. The point is that none of these processes is reversible. So

the products, including carbon dioxide and everything else technology outputs, will be here with us for some time, while the resources will not, if the technology consumes them. Well then, what will be the value of the outputs of today technology to us in the future? Or to those who come after us?

Feedback from the future

The absolute basis of intelligence is flexibility (Stafford, 2013). It allows any system to choose a way how to act on perceived results of any of its actions or changes in its environment. To survive, any organism is dependent on a feedback. Humanity, technology, created by it, and their relationship can be seen as a system that came out of nature (even if in a bit bizarre way) and therefore inherited many of its characteristics. It acts quite like a living organism[1]. Today, in a world steered by economic principles more, thanks to more effective exploitation of resources, and faster than ever before, consumption, and precisely what determines it: demand and supply shape and control the development of culture[2]. Then, if demand and supply constitute economics, it definitely is behavioral. Therefore culture is dependent on feedback. But there is one kind of feedback that is often overlooked or marginalized. It is a feedback from our own future. Fossil fuels such as oil are only a few examples of vital components which in today state of technology development cannot be replaced. Yet there is no known way how to continue in such a rapid progress without them and many others resources. And it seems like the only thing technology is able to do is to reconstruct natural resources on various levels. But not without loses and certainly not in any way imaginable. When shall we come to the point when some irreversible changes caused by us will cause the progress to be unsustainable? We could say that we cannot know what kind of more sustainable technology will be available in the future and what it will provide us with. But we can be sure that we will face problems we keep putting off. So, is our luxury worth taking the risk that we, or possibly our successors, will not be able to live with dignity and securities we now consider for granted? What will be the value of a barrel of oil to people 30 years from now? Is the price we pay for

[1] Probably because it is, to certain extent, managed by humans.

[2] Culture here meant in a boar sense, as everything created by humans.

it, which is included in our laptops, shopping bags, medicine or cars reflecting it? Or shall we just move to the next thing? And will there be a next thing as good as we have now? Without a feedback from the future, unfortunately, we cannot have enough information to know for sure. This will probably sound as a miniscule note, but we can try to make our decisions based on our best ability to think rationally. Because it is also us who create the demand.

Responsibility and power

Humans, as a species, have evolved a not at all perfect tool which provides us with many opportunities, if not as individuals, then at least as a society. We have a power that seems to go beyond our understanding. But on the other side it binds us with responsibility, which, to the extent it should be understood for us to be able to sustain the level of current development, is something we seem to admit very unwillingly, if not even deny it and refer to natural selection and intentions of nature, when such species evolved, or should I say were developed. But we might consider such fatalistic approach to evolution to be very opportunistic, if not even blind. And I think it would be the right thing to do, because how can one refer to the past welfare when looking at the future uncertainty and reflect it and consider it to be the same thing, if not even better? It is not.

If by the pace todays technologies are being developed it is unimaginable what will be available to our benefit in an outlook of a few years from now, how can one think about sustainable and systematic advance? Well, an individual, unless a very special one, for sure cannot keep up the pace. Not yet anyways. Has not the time come to think whether us as a society, are able to control such a great living organism such as our society itself is, on a level that we would not destroy ourselves and of course everything there has been developed through natural processes up until now? On both, organic and inorganic levels. I think it is important to ask such question because it is not only our responsibility, but also in our own interest.

If we want to look at how things might look in the future we have to know what mechanisms lay behind them and how they work. And which is more, if we want to constitute the future,

through technology, as it is inevitably happening in the present, we have to understand all the consequences of the endeavor. At this point a reader might make an objection, which would be reasonable, and say that technology has for the last few decades, or even, centuries if you will, evolved in an unprecedented way. Often growing exponentially, in its sophistication, showing us that by this pace everything is possible. So we might have a reason to expect that soon, we, maybe not as fully naturally constituted species anymore, will be able to understand everything that is going on in, on and around our planet. To monitor all the data needed to simulate all the expectable processes of the world that concerns us, from solar eruptions, earthquakes, levels of resources to weather and climate changes in long term. But such complex calculations and monitoring now seem to be more of a science fiction than close reality. So what does it mean for us now? That we cannot make exact and often not even nearly accurate predictions. In last decade (2000-2010) the models of rising temperature as a consequence of high volume of technology induced gases in the atmosphere have been shown as quite inaccurate (The Economist, 2013), and despite the importance of this fact, nobody really knows why it is so. And that brings me to a question which is probably a bit about ethics, but I see it as inevitable. If we are able to make real irreversible changes to organic and inorganic elements, which the nature "provided us" with and transform them to our benefit, and yet we cannot determine, or even correctly estimate the meaning of the change and absence of the materials in the future, nor the importance of them, should we take the risk? But to approach this question in a humanly fashion, one can say: There is no such thing as a free lunch.

A model of the world

I would like to begin this sequence with a quote by Buckminster Fuller: "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete." To make the right decisions in the large scale, which we have been trying to make for the last few centuries, we cannot use trial and error method. Simply because the trial might be too costly to repeat as well as the error might be fatal. Therefore we need a model to test our hypothesis. But, in my opinion, even the best models, representing

the world, we currently possess are obsolete already. And they will continue to be for many years. That is because of the complexity of the world on one side and the lack of information about it on the other. Fortunately for us, the evolution of technology moves in the direction towards a state in which such a model could exist and even work in acceptable tolerance of error. It is hard to imagine something like it for a person living today, I can talk about nanotechnology based sensor networks to aid the monitoring, quantum computers to do the computation and an age of singularity when human-technology cross species would be able to make rational and complex decisions, or even a machine that would make the decisions for us, but the ideas I just presented might seem outdated to anyone a few decades, if not even years from now, just like the imaginations of flying cars from the half of the twentieth century seem to us today. That is a destiny of the science fiction. But the fact is that a working model of reality will be available in the future, at least I think so from my point of view. But the question is whether it will be available in time. What would be the benefit of a model of the world if the world itself would, according to it, be inevitably set to cease to exist?

The current and future state of population, nobody would like to deal with

Overpopulation has been a growing concern for the last century and it is set to be in the future. Because of the complexity of the relationship between population and resources the question of overpopulation is still unclear. Despite frequent famines and draughts there may be a hope for a system for redistribution of resources to work in the future. New technologies such as 3D printers able to print various range of materials, including organic, might allow it. But there is a limit to earth's resources, which we cannot lift even if we use future technology. Therefore there is a limit to a total number of people who can live on earth at one moment. And there will be a question: if we are able to use technology to introduce some kind of resource redistribution while still keeping the pace of progress on sustainable level, will we do it? Or will we leave the nature to deal with it as it does now. We have to remember that it could be us on the other side of the system. And we also have to remember that a decision to act, as well as a decision not to act come at a price. Hopefully there will be a machine to make the hard decisions, or for the better, to make the right decisions.

The further state of population nobody should deal with

Maybe we do not see a reason to be concerned with such remote matters, in both, terms of time and location, but as I see it, they are going to find us, even if we are not looking for them. There is longer lifespan and healthier life through medicine and technology awaiting us. And eventually a merger of biotic and virtual, technology based, ourselves is on the schedule. And all of us are going to want to live a full-value life with no limits imposed and for as long as possible. Now, let's imagine a future with high security levels, every important information sorted and evaluated, genome based medicine and some privileged people living their way to infinity and probably a social solidarity in society[3]. Is there any danger of not living? We might not remember it, but the reality has not always been such as it is today. A mere two centuries ago there were no laws concerning child labor, no vote and other rights for women, even in democracies and even no democracy for most countries[4], no electricity and information spread through the few books and the fewer educated people. There has been an exponential progress ever since and there is no empirical reason to think it is to change in years to come. The contrast between the past and the future is going to increase and the quality of our lives is expected to increase with it. So is there any danger for us in the future? Well there are a few things that cross my mind.

One of them is what has been here with us ever since. The desire for power. Or to put it more generally: the human factor. The progress of technology makes space for great manipulation possibilities accessible from a position of power. With a bit of luck, the technology could be able to take care for that, as we cannot know for sure now.

But the other thing, the ultimate danger there is, is the fragile nature itself. Not as an enemy, as we see it now, when we keep tearing the things we need from it to fuel our state of satisfaction. Not as a companion, because that would be just too hypocritical from one of its products. But as an overlaying ecosystem for which we will have to find a way to symbiotically

[3] As it seems to be important today, I assume people will not be willing to give it up for just anything.
[4] I understand positive or negative effects of democracy could be a point of dispute, but in this case the honorable reader will surely agree that it is suitable example.

coexist with the other ecosystem we have, so recklessly, been creating. With our culture, including the technology.

Conclusion

If there is a solution to what we, or who is to come after us, will perceive as global problems we cannot be sure it will be good enough. But I feel we should at least try to do our best. To look inside us and with the best ability, try to find the conscience, which the society, probably including ourselves, is trying to suppress in the name of consumerism and better present, and confront the part of us every time we chose between what we want and what we need. It is not a natural thing, but a virtue to be rational in the long term.

Sources

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