Chapter 1: Is the Sky Falling, and, If So, Does Anyone Care?

The first chapter of the book gives a couple of important aspects on sustainability. The first one which caught my attention was the point where the writer says that we react on problems after they happen and then try to invent a cure for that and make things better afterwards. The writer's perspective is to make good happen without waiting of the worst case scenario happen. He talks on the first chapter of the lost senses of human's which are the lost sense of what is it to be human being, the lost sense of our place in natural world and the lost sense of responsibility of our actions and our relationship to others.

The first chapter of the book reminds us to think about the fact that the key to sustainability lays in our minds. The way of thinking has to be changed to reach sustainability in its different sectors. The chapter also gives an expression that today's human being doesn't care anything else but himself. When the writer describes the lost senses of the human's it gives a clear example of how people have forgotten that we're only a part of this world not the main thing in this world and all the living things on this world should have space in here.

Chapter 2: Solving the Wrong Problem: How Good Habits Turn Bad

On the second chapter of the book the writer describes how we solve problems and by this cause another problem. He gives an example of how busy people don't have time to make food by themselves so they start eating fast food and that will cause obesity. In this example eating the fast food is only taking your hunger away but it'll cause obesity. In this case the correct solution to the problem would be better time management.

By the given example the writer illustrates the sustainability problems: the solution to some sustainability problem will cause new problem in somewhere else. The problem is that people can only see short time effects of the solution and can't see long time effects. Today in many situations the problem is that the solutions people invent are solutions only for a short time and they will give results in a short time when the solution should have long-time effects. This might be because more are always expected from people in a short time but the final situation isn't good. In medical terms the same scenario could be described

by curing the symptoms not the disease. The writer expresses himself well when he says that the sustainability isn't reached by reducing unsustainability.

Chapter 3: Uncovering the Roots of Unsustainability

In the third chapter the writer argues that unsustainability comes from three basic things: reality, rationality and technology. By reality he refers to the way that people see the outside world as an external part of their life when the life should be seen as a result of our actions and which changes through interactions. In the rationality part the writer refers to the fact that human mind tends to think how the human will be satisfied with the available resources and the main point is always a single "I" instead of "we". To say it in a simpler way people, tend to think only themselves. The technology part of the text explains how technology is externalizing the people from the world we're living and how it is used without broader understanding of the technology.

The part of the text is leaning towards the earlier chapters: the people tend to think only themselves and technology is making it harder to change the mindset of people. On my point of view, the writer is correct when he is talking about how technology can bring people together but also separate them from the world we're living in but the broader understanding of the technology from people who are using it shouldn't be needed. People buy different technological devices to make their life easier which shouldn't be a problem but the responsibility of how the technology changes the outside world should be the manufacturers' of the technological devices. The deep understanding of different technological devices shouldn't concern people's minds because different people think differently but the fact that people couldn't utilize the technology in unsustainable way should be inventor's responsibility. But I agree with the main idea of the text that people's mindset should be changed – not just invented new technologies to prevent unsustainability.

Chapter 4: Consumption: A Symptom of Addiction

In this chapter the writer criticizes the today's society from materialism – people are judged by their earning and owning rather than by their actions. In many chapters the writer is talking about how today's

people are more satisfied on *having* things than *being* a human. He argues that today also feelings and for example love is acquired and people can "have" it. This having thing is through our culture where still the big "American Dream" is a goal for many people. This mindset doesn't progress sustainability – on the contrary it progresses unsustainability. The writer digs deeper when he's saying in earlier chapters that people's mindset should be changed and we learn our mindset from our culture so the culture should be changed. In this chapter he also is saying in between the lines that people today are kind of lazy and seeking easy solutions like buying a new car rather than repairing the old one which consumes more the nature.

Overall the chapter is discussing about changing the mindset through the culture we're living in. He illustrates the mindset of today's people by this double loop figure where it can be understood that people never come satisfied when they try to acquire happiness through having things. People should find their place on the world by *being* the one single piece in this enormous puzzle.

Chapter 5: A Radical Notion of Sustainability

In the fifth chapter the writer emphasizes the problems of today's sustainability: we can't find a single path for becoming sustainable society. The writer discusses about how sustainability is tried to achieve through removing things that are not sustainable. This example can be illustrated as a company which is trying to success. If they have some kind of income which isn't enough the reducing amount of employees doesn't help for making it profitable in a long run. That is only one thing that helps in a short run but the main point is to increase the income. Same can be though when thinking about sustainability: when we cut out unsustainable things, it helps but doesn't make the society sustainable. The vision of what kind of world we have when sustainability is achieved should be the goal.

In this chapter the writer also talks about the definition of sustainability and he proposes that sustainability could be defined as "Sustainability is the possibility that humans and other life will flourish on the Earth forever". Later on the chapter he talks of how people is only a one part of this world in addition of other living things and we tend to forget it. This is true the arrogance of humans is a problem because we tend to think that we're the king of this world but in sustainable world we're only a part of it as I mentioned earlier in this text.

Chapter 6: The Tao of Sustainability

In this chapter the writer gives a new perspective to sustainability. He argues that combined ethical, natural and human aspects the sustainability is created. The natural aspect is easy to understand because it is traditionally a symbol of sustainability and it the most visible part when talking about sustainability. The human dimension refers to the part where people should find their place on the earth and leave the *homo economicus* behind who is concentrating on having things rather than being a human who walks his own path. The third aspect is making ethical choices and concentrating on long run results without making the choice to be harmful for any party.

In the chapter the writer talks about how human should find their own path of life and kind of forgetting to be rational. Most of the people see their lives in a simple way like going to school, getting an education, going to work, retiring and dying. The writer emphasizes people to test their borders and imaging and making irrational choices where the chances to success is smaller but still there. He writes about how people tend to forget their dreams if the dreams seem too far away but instead people should dream big and go after their dreams. In a simpler way the writer talks about how this world needs visionaries to success in sustainability.

Chapter 7: Change, Transformation and Design

The writer talks about that the way we're living right now is kind of addiction which should be cured and getting rid of the lifestyle demands actions. The transformation process of getting rid of this addiction could be through experimental education. He also argues that the scientists today tend to always find some kind of framework for the things which happen which slows down the progress.

The way writer sees how to solve a problem is through "design" as he calls. The design is a way where all the parties of the problem are given attention equally and there is no traditional problem solving techniques. The design kind of problem solving aims to find a solution by changing the basics of how the problem even occurred and the solution satisfies all the parties. This "design" problem solving may sound new but actually is used all the time in education and in mental healthcare: starting from basics

and progressing. The writer argues that going towards sustainability the problems could be solved through this design process.

Chapter 8: Culture Change: Locating the Levers of Transformation

The chapter is about the power relationships which effect on people's culture. The factors are signification rules (beliefs), legitimation rules (norms, strategies), authoritative resources (power ordering) and allocative resources (tools). The chapters tell about how changing one of these factors other factors changes too and how it would effect on sustainability. The writer argues that changing these factors one by one would increase the amount of sustainability when changing these all at the same time would make it even worse.

Today's world isn't ranking the sustainability high enough because we are so capitalized and from our actions it can be gathered that even when we talk about sustainability we think the money we can gain with it. This is part of the problem which the writer talks about. The writer argues that the core problem in sustainability isn't the environment – it is the social part. Without changing the culture and the social part of the sustainability the environmental factor can never be achieved in sustainability. The social factor of the sustainability is linked to the culture of the people and the culture is linked to the four factors of power structure which are how to change the culture. After getting the social aspect of the sustainability to work the overall sustainability can be achieved.

Chapter 9: A New Story for Nature

The chapter is about complex structure of nature and how there are complex entities and what makes these complex systems one single entities. The writer describes complex system as a system where there are multiple things which can change the system. He uses nuclear power plant as an example when he describes that the system it is working is simple but when we add humans it becomes complex. He also describes how the single parts of one big entity has to work when they're combined. As an example we could think about a football team: there can be multiple high-class players but when they're put together if they synergy isn't good enough the whole team can lose to a team where the synergy is great but the players are worse.

Sustainability works the same way. There are single parts of sustainability which may be sustainable e.g. sustainable and organic plants. However, when these plants are combined to outside world where the things aren't so sustainable the entity overall isn't sustainable.

Another problem is that the sustainability can be seen through different lenses: others see the economical part, others see social part and the last group sees the ecological part. There are so many measures as the viewers see it in different ways. The whole entity of sustainability can't be measured with one measure it should be seen as an entity. Also the earlier chapter discussed about values and rules linked to the sustainability and this part of seeing it through different lenses is linked to the values.

Chapter 10: The Importance of Being…

On the chapter 10 the writer talks about the difference of Being and having. He also emphasizes the importance of Being when trying to transform the world towards sustainability. Today's world is now on the having mode. A good example of having mode is when the writer talks about teaching today: the teacher has the information and gives it to the students. However, that is the wrong way because every student should be given the chance to learn the things on their own way. There is certain things which are wrong and which are right but there are also things which every student should find their own way to believe. When the teaching goes on students' ways the way is right. Under is a good example of teaching today.
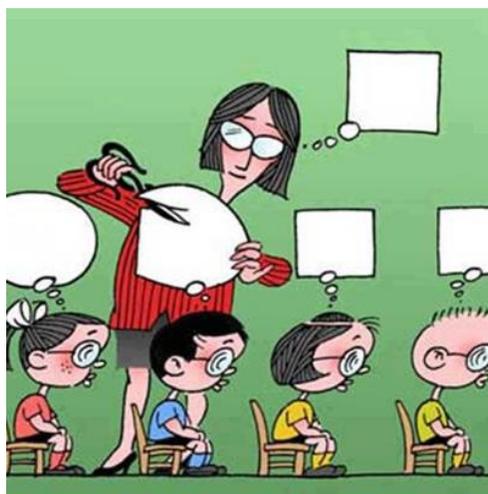

Figure 1: Teacher cutting students' thoughts (Source: Unknown)

On the picture above there is described how the teacher cuts the students' thoughts to same as hers. I think the picture reflects well the problem the author is talking. Every human should be given a change to *flourish* with their own thoughts and find their own place.

The writer talks about how every human being should find an own path in the todays culture and not going with the flow. Being is to reflect on the today's culture and having an idea of what is the result of single human's actions in this world. When the Being of humans' is found the sustainable design of technologies is possible. The author argues that today the technology is only hiding the core problems of sustainability. For an example we can think about car industry: traditional car producers are trying to make their cars more fuel efficient when at the same time we're running out of fuel. The solution is only short time solution because eventually we will run out of oil and destroy the environment. The right solution is to find another energy source for cars which is eco-friendly. We already have the solution in our hand: electric cars but there comes an another problem: how to produce electricity eco-friendly. Solar power is our best option but what prevents of using it more widely: the nature of human beings because we care about the financial profit. Here is when we're linked back to the chapter: we like to have money, have power but we're ready to make any sacrifices to make things better and long-lasting.

It is good to keep in mind that the being is the only thing which differentiates us human beings from other beings in the world and the humans are the one who put this world to this condition and at the same time the only ones who can put it back to the right tracks.

Chapter 11: Consumption and Need

In this chapter the author writes about consumption and need. The consumption word is almost a swearword when talking about sustainability because everything is measured through consumption. The author argues that the consumption of the goods and materials isn't the right meter for measuring sustainability and in finding the sustainable ways of doing things. These measurements should be made from the consumers: humans. At this point it is quite clear that the author argues that the sustainability starts from social point of view.

The author argues also that the economical growths starts from social sustainability and the economic growth is the result of overall sustainability – not one of the sustainability factors.

The other part of the chapter is discussing about the needs of human beings. There is presented Maslow's hierarchy of needs and Chilean economist's Manfred Max-Neef's point of view. Overall the last part of the text is saying that the satisfying needs isn't enough – satisfying needs well and in long term is the key. The author is talking multiple times about his loop model where the addiction part should be satisfied and in every topic he is talking about he thinks the ways of how the "bigger picture" is satisfies – not only for a short time. The key in sustainability lays in the big picture. He is also talking about the need of human beings' – we're always in a need of something. The right way should be put in our minds that we don't need anything – we care about things.

Chapter 12: To Care Is Human

This chapter discusses about humans identifying themselves as human beings and the place on the earth. It also describes about the sustainable design which should focus on utilities – to the things people can utilize and which emphasizes the human Being and caring – not having and needing.

The writer argues that when the whole world's technologies are designed to be caring about nature and human groups are going to make world more sustainable. Also he is saying that one single thing can't be sustainable. For example, a mobile phone can be made from renewable materials but it can't be sustainable. Anything X can't be sustainable as he says. I have heard many times that by focusing on making economically beneficial products you won't gain success; the success becomes by making things which help certain people group – the same thing can be read from the text between the lines. The core of economic success in entrepreneurial world lays in helping people – caring – not achieving as big profits as possible.

Chapter 13: Creating Possibility with Products

In this chapter the author discusses about the awareness of the people of their actions and about other things, for example tools and to say it in normal language items or objects. The author talks about how some items are for us so clear to be there that we don't even recognize the value and the importance of it or we don't question if we need those items. This is leading to the subject when he talks again about designing.

In the designing phase of the product people can make difference. The first thing to do is getting the people consciousness about the item they're using and what is caused when using that item but not making it harder to use. The author uses very good example of toilet seat how people have to decide if they use "big flush" or "small flush". Automatically people start to think why there is two buttons on the seat and then they can make a choice if they have to use only the small flush and save environment by it. It is a very simple example but according to the author encouraging to sustainability. The design of the products doesn't have to be complicated – just the little things make the difference.

I came up with a good example from car makers of how they manage to make cars eco-friendlier even the people today are more arrogant towards nature than in the ideal situation. The car makers have the little "eco" button almost in every new car. People can decide to drive "eco-friendly" and they save gas: in here the people think they save gas but at the same time it saves nature. Also at the same time this forces people to think the effect of their actions.

Chapter 14: Presencing by Design

On the chapter 14 it is discussed of how the human participation is crucial when using different products. The participation adds the part of communication and presence when using the product. To this point I've noticed that the products are mostly automated and the goal of user interface or product design is to get the product working automated – not needing human contact to the product. However, this chapter revokes that thought. I still think that some of the product features should be as automated as possible but the meaningful features which have significant effect on outside actors should have the choice feature. For example, if we use the car industry as example the "eco-friendly" drive mode should be always the

default option and if driver wants to take it off the car computer asks to confirm that the driver knows the consequences of his action. This kind of warning system is only concerning the cars' safety features such as ESP today.

The chapter also discusses about different kind of communication types between the user of product and the product which the designer of the product should notice. However, what caught my attention was the role of designer – which is bigger than what I expected. The designers' minds have to be thinking in sustainable way – in the ways this book is teaching. Otherwise the products will be encouraging the users to unsustainable actions. Also the author discusses about the market researches and what they reveal about the customers – only the most superficial needs. Steve Jobs is the legendary innovator who said that the customers don't know what they want and I couldn't agree more. Also the author seems to agree because he says that market researches don't show the hiding need of the customers'. However, these researches might show the signs of the true need which has to be dug out from the superficial needs.

Chapter 15: Creating Possibility Through Institutional Design

In this chapter there is discussed how there are different "institutions" which affect to our behavior, to our culture and norms. There is certain culture in the whole world and in different countries but there is only single institutions which have also their own culture. The author is focusing on bigger entities like affecting on human behavior in a bigger scale and the designing of how to effect on human culture by designing. According to the text the designing can be implemented in a form of education or with products. The right way is to change overall behavior in a deeply way and without using "quick fixes" like products to make people act in more sustainable way.

Overall in this chapter the narcissistic behavior of human being is discussed and it is said that it becomes from the "Having" nature of human beings. The author also mentions the evolution in this chapter which got me thinking that if the evolution is still going on in a "deeply" way. I have already read that if we won't start acting in eco-friendlier way the humans' nose will change because the increasing amount of pollution and some physical changes will occur. However, I started thinking that how will the mind of people change in the following years if we won't start acting in a sustainable way. Will we become even

more narcissistic and not care about the nature at all and eventually destroy it or if we start thinking more about the nature and sustainability will we eventually live in a *flourishing* world?

However, the main point of the chapter was that the change starts from peoples' minds and the mind can be changed through designing the institutional structure better. The author is saying in many ways that designers are the key actors when going towards sustainability.

Chapter 16: Implementing Adaptive Governance

In this chapter there is described different factors of the "Adaptive Governance". It means a new kind of governance which is managed differently than today's governances. There is presented precautionary principle, participatory design, small-scale social experiments and non-punitive, nonpersonal awards of damages. The text means different institutional governances e.g. educational institutions.

In the chapter there is mentioned a very effective model of how to design a product – or anything else. There is mentioned different stakeholders in cooperation with the designing process and the model is very effective for different problems. Another thing that caught my attention was the small-scale social experiments when testing new things. I have heard from the 5-500-5000 rule which is that every new product should be tested with a budget of 5 dollars, 500 dollars and 5000 dollars and test if the idea is still valuable. The small-scale social experiment has same attributes as the 5-500-5000 test.

Another surprising factor in the text was that everything happens for a reason – according to the author. He says that also the environmental catastrophes have their reasons – tsunamis including but todays' governances are arguing that they are just normal unfortunate situations.

However, the chapter gives a comprehensive view of what different things should be noticed when building this adaptive governance. The wicked problem view was also emphasizing the role of the designers and managers when building this model and even more responsibility were given to those actors.

Chapter 17: The Special Role of Business

In this chapter there is discussed of how business and economy has impact on almost everything in this world. The economic growth is traditionally seen one of the sustainable development parts but according to the Tao of sustainability it isn't. The author describes the situation well: the flourishing requires addressing all domains of concerns when talking about how decreasing poverty would solve sustainability problems. The level of poverty or the amount of money for individual isn't the goal in sustainability because the sustainability is about Being and Being needs just the money for coping because the satisfaction becomes from another thing.

The author also discusses about companies and governances and how Toyota have succeeded to create a kind of adaptive governance inside their company. The author describes different most famous factors of Toyotas procedures which other companies are trying to imitate to their actions but without succeeding in it. The author argues that this failure is due the lack of corporate culture inside the firm. Toyota have succeed that the workers reflect always on what they are doing and also they learn in practice and implement continuous learning by that. When building the adaptive governances which emphasize sustainability Toyota should be taken as an example even if the governance people want to build would be educational institution.

Chapter 18: Epilogue

The last chapter was a conclusion of all the earlier chapters. There is mentioned some valuable aspects regarding to the changes the author proposes. The author emphasizes that the world isn't lost yet but if we keep going like this without any changes we will end the world much faster than expected.

I think that the most valuable aspect from this chapter which regards many other parts of life too is that making small incremental changes in a small time than reaching huge changes in a long time is wiser. It will be much more effective way to go.