2019 Volume 8, Issue 1

Challenging Organisations and Society

reflective hybrids®

Grasping the Multiple Facets of Intelligence

Editors: Maria Spindler and Christian Stary

COS-journal
Peer-reviewed

Journal "Challenging Organisations and Society . reflective hybrids® (COS)"

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Proofreading: Deborah Starkey

Layout: www.kronsteiner-lohmer.at

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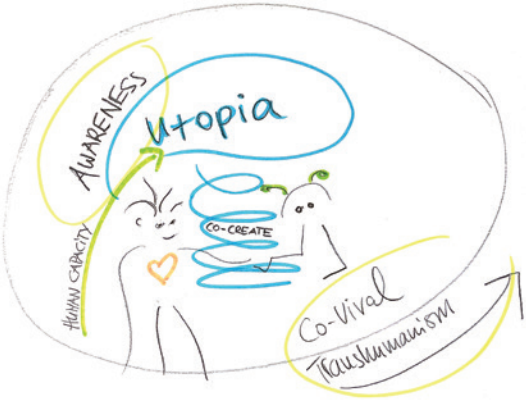
Co-Vival: Embracing Artificial and Human Intelligences
An Awareness Approach for Transhuman Futures

Abstract

With the multidimensional notion of Co-Vival we offer a blueprint to connect and co-live with artificial intelligence and thus step up to next humanism. Co-Vival is already among us. The public talk with "Sophia", the first robot granted citizenship in Saudi Arabia in 2017, who is a guest in interviews and talk shows. The conversations show us a glimpse of the challenges ahead[1]. The interviewer and audience are stunned, thrilled, insecure, enhanced, and more … at the same time. The answers are normal, unexpected, exiting, an interwoven new fabric of how to communicate with a digital human-like being. In this article we provide some orientation to prepare and build capacity to act as humans to amplify the human system. We show how to enhance and integrate our multi-dimensional intelligences for a shared utopia.

Our field of concern embraces utopia as a positive way of futuring. In this article, utopia manifests in Co-Vival as the highest form of human capacity – co-creating our future in an inclusive approach. To develop the capability for Co-Vival, our human awareness needs to be increased. This increased awareness features embracing different forms of intelligences.

1 https://www.youtube.com/watch?v=E8Ox6H64yu8 (download 3 January 2018).



Graphic 1: Co-Vival, our field of concern

Key words: artificial intelligence, multidimensional intelligence, humanity, utopia, singularity, next humanism.

Introduction: We Need to Prepare

Imagine you have a robot as prosthetic arm. It is connected to your nervous system; it and your brain learn jointly. You teach each other how to move, how to touch, how to progress to opportunities that come with a robot as your body part you did not have before. With your brain you can learn from the metal robot to endure extreme heat coming through the metal fingers into your nervous system. You can make movements a normal flesh and bone arm could not: you can rotate your elbow, you might have webbing between your fingers and swim faster, your arms might sprout wings. Your brain has to learn how to perceive and steer the new movements, while your robot arm has to learn to connect to your nervous system and when to be gentle and when to be strong. It is more than co-living with a robot. It is

Co-Vival, as it changes an entire living system that you, the robot, and your interactions are part of, driving the dynamics.

For the sake of denoting the unknown that comes along with artificial intelligence, we term the vehicle, the process and the outcome Co-Vival. It is created through the core of humanity: self- awareness for co-living and co-working with artificial intelligence. While Co-Vival is a shared endeavour, each of us decides which role she/he plays, and finally, how to grow. Co-Vival is our subject of concern – our risk and potential for a new life. It stands for us humans co-living with multiple intelligences and for the opportunities we have to live together with "artificial intelligence beings". At the moment we humans call them artificial intelligences, digital artefacts, or robots.

The future is not to be predicted[2]; it is to be co-created[3]. This is challenging, and it is fortunate. If the future were predictable it would be a sad thing, as it would mean that we already knew what it was and could not do much about it. We would be passive victims. The way it is today would be the way it would be tomorrow, with just some linear changes: some things would grow while others vanished. There would be no qualitative development.

What we actively and consciously can add is human value, increasing potentials, responsibility for our own destiny, the destiny of others, and the destiny of world. According to Laszlo (2017), the challenge before us as a conscious human system is to take the path of transformation rather than that of extinction. The alternatives before us are these: we face either a future of breakdown (it is already too late; technology and politics rule and we can do nothing about it) or a future of breakthrough. These are diametrically opposed alternatives[4].

2 Complexity relations traces back to Kant; not the thing per se but the relationship. System thinking (Senge), System Theory (Luhmann), etc. are current answers.

3 Co-Creation: Action learning, Action Research: Kurt Lewin, Otto Scharmer.

4 Cf. Laslo 2017.

We are developing with increased diffusion of digital technologies, leading to complex, dynamically adaptive and highly diversified systems. The role of human development is challenged by the potentials and opportunities to co-create living spaces and transhuman settings. Informing ourselves about artificial intelligence, robots, and their influence and capabilities allows us to increase our capacity to deal with the challenges ahead. When we do not address AI experts as technology developers, but rather take a social and human perspective on AI developments, AI system creators and AI's inherent potential, our differences as resources can lead to a co-existence understood as a constructive and continuous process of co-creation.

Singularity (more precisely, technological singularity) is a hypothetical future point in time at which technological growth becomes uncontrollable and irreversible by humans – the control and capability of further development is assigned to the digital system, resulting in unfathomable changes to human civilization. It will touch all humans, the entire human system as an entity.

How can we prepare for singularity, when transhumanists' prognosis is that singularity[5] will become reality in 2045? The most likely cause of singularity would be the creation of some form of rapidly self-enhancing greater-than-human intelligence. We cannot know where Co-Vival will lead us, but we can prepare. We can only provide some orientation for individuals and collectives to prepare, due to its novelty and substantial challenge.

Each of us is challenged to open space within and around us for dealing with this high uncertainty. We can no longer leave futuring to experts; we must step into responsibility. The main question is: Can we transform beyond one-dimensional and two-dimensional mechanical learning to a multi-dimensional complex approach?

5 Cf. Bostrom 2014 and Vita-More 2018.

Our intention as authors is to tell the past and future story of our human capacities. We dare to turn them into opportunities, enabling us to co-live consciously and actively with artificial intelligence. We interpret it as the need to step up to next humanism, to step up into our own not knowing, into the intangible and nothingness, so that the next layer of complexity and awareness can emerge. We show the plasticity of the human condition and the potential of our awareness. By 'meeting Co-Vival' we revisit our human condition to become aware of our capacity and potentials and thus engage with self-empowerment and co-creation in light of increasingly intelligent technologies.

The way to growing next humanity is the inner – outer duality and our decision-making. It leads us to utopia and different intelligences. We explore how we could renew space, form, time, location, social relations, the field that surrounds and nourishes us through opening to uncertainty in, between and beyond our hearts, minds, bodies, relations, and organised systems as well.

We can only provide a first glance, as we all have to walk jointly, step by step, experiencing, learning, adapting. We proceed with creating a blueprint for orientation to prepare for Co-Vival, for shared development and co-futuring – between humans and robots equipped with artificial intelligence, a blueprint that has the potential to transform us individually and as a human system. It enables us to bridge the past and future to meet and resonate and triggers a multi-modal procedure, involving cognitive, somatic, social and field-related elements. Once inner space has been deliberated with respect to individual existence, capabilities and needs, turning to the outer space can lead to patterns of social interaction and organisation.

Co-Vival is our utopia in three different forms:
Co-Vival as vehicle: robot-being that helps us on our journey to transhumanism.
Co-Vival as process: a certain way of communication – co-creation, as shared leadership, that allows the best way of creating and sense-making for our lives together as humans and robots.
Co-Vival as outcome: the transhuman, the new human species of the future; the embracing, inclusive, complexity-enhanced new type of being

Graphic 2: Three utopian forms of Co-Vival.

Transhumanism: The Next Human Challenge

What is our next challenge? Why, and what could emerge? What is our task at hand? Transhumanism[6] as concept and vehicle opens new opportunities.

6 Cf. Vita-More 2018.

It is seen as philosophy, worldview and movement and aims to enhance humanity. Natascha Vita-More[7] uncovered the first use of the term "transhumanised", by the poet Dante Alighieri in his opus *"Paradiso" of "La Divina Commedia"* (1312). In this reference transhuman means to go outside the human condition and perception. She identifies throughout history numerous forbearers of theories on human evolution, all suggesting that the biological human is not the final stage of evolution. Vita-More emphasises the "understanding that the human condition is one in which we might go outside to gain perspective, a process in becoming, an evolutionary transformation."[8]

She outlines the utopian perspective in *Transhumanism. What is it?* by asking what we will become. She focuses on healthier, more durable and longer-lasting bodies and a more humane humanity. She argues that we are in the process of evolving our second nature and that humans will become a human in transition or transhuman and later become a posthuman. She suggests that a posthuman will be a person who can co-exist "in multiple substrates, … the physical world as a biological or semi-biological being … will live much longer than a human and most likely travel outside the Earth´s orbit."[9] She considers the concept of human evolution anew as she concludes that the body endures over time as a sustainable system. This system simulates biology with technology to function as an adaptive process by organising cells, molecules, and machines to work in concert for regenerative purposes. She contemplates the body as an ecosystem that hosts the process of renewal, restoration and growth. With this ecosystem concept resilience can come to the foreground as an answer for the environmental changes the earth is facing: "… normal fluctuations within … biology and the environment. As such, it is only natural that the human body evolve to a state or renewal and restoration as a precaution to the imperilment of life."[10]

7 Vita-More 2018.

8 Vita-More 2018, 12.

9 Vita-More 2018, 31.

10 Vita-More 2018, 35.

This change from human to transhuman to posthuman will not happen without tensions and dilemmas for us individually and collectively: our emotions, our value systems, and our dilemmas as human system. "That the convergent–emerging and exponential technologies of genetic engineering, Crispr, stem cells, nanomedicine, …, along with cellular rejuvenation and immunotherapies could extend the human life span beyond its limits and, further, alter the genome, reverse the effects of aging, increase intelligence, and possibly bring about a species' evolution of the homo sapiens toward transformation and later toward a type of posthuman future, then it is likely that here where a social and cultural tension resides (sic!). This tension pulls us in the direction of curiosity and intrigue in exploring where these possible changes could lead us, and it yanks us away abruptly, as if having confronted a border tainted with historical angst, mythical warnings, religious improprieties, ethical concerns, and socio-political disappointments and confusions."[11]

In this sense, in the 20th and 21st centuries transhumanism is mainly discussed as evolving intelligent life beyond its current human form, overcoming human limitations by means of science, biotechnology and technology. It should be guided by life-promoting principles and values[12]. The vision and hope are for a new human system awareness, a new human system that is able to enhance human intellect and psychology and thus also overcome ethical limitations.

Advocating the improvement of human individual and human system capacities through advanced technologies has triggered intense discussions about future IT and artefact developments. In particular, Bostrom[13] has argued that self-emergent artificial systems could finally control the development of intelligence, and thus, human life.

11 Vita-More 2018, 33.

12 Cf. More 1990.

13 Cf. Bostrom 2009 and 2014.

An essential driver of this development is Artificial Intelligence (AI). Digital artefacts such as robots have increasingly become autonomous, allowing them to reproduce and evolve under their control[14]. The key is their assumed capability of self-awareness[15]. As a technology construct it requires some digital representation, such as a situation calculus, and can comprise[16]:

- knowledge about one's own permanent aspects and of one's relationships to others,
- awareness of one's sensory experiences and their implications,
- awareness of one's beliefs, desires, intentions, and goals,
- knowledge about one's own knowledge or lack thereof; awareness of one's attitudes such as hopes, fears, regrets, and expectations, and
- the ability to perform mental actions such as forming or dropping an intention.

Some forms of self-awareness have been considered useful for digital artefacts (robots), in particular[17]

- reasoning about what they are able to do and what not,
- reasoning about ways to achieve new knowledge and abilities
- represent how they arrived at their current beliefs
- maintain a reflective view on current beliefs and use this knowledge to revise their beliefs in light of new information
- regard their entire 'mental' state up to the present as an object and have the ability to transcend it and think about it.

McCarthy[18] considered "the main technical requirement for self-awareness of ongoing processes in computers is an interrupt system, especially a system

14 Cf. Gonzales-Jimenez 2018.

15 Cf. Amir et al. 2007.

16 McCarthy 2004.

17 Cf. Amir et al. 2007.

18 McCarthy 2004, 8.

that allows clock interrupts. Hardware supporting interrupts is standard on all computers today but didn't become standard until the middle 1960s. The human brain is not a computer that executes instructions in sequence and therefore doesn't need an interrupt system that can make it take an instruction out of sequence. However, interruption of some kind is clearly a feature of the brain." This statement exemplifies how mappings from different types of system could influence confluence.

The recognition of the social aspect of self-awareness[19] seems to be crucial, as a digital artefact (robot) may, in the future, have a learning mechanism itself that it can use to interact with others. Originally thought of as a property to be used in multi-agent systems for dealing with errors in communication, argumentation, negotiation etc., it could be useful for reflecting on one's own development state and articulating meaningful inputs.

Transhumanism invites and urges us to expand for ourselves the realms of opportunities, opening new spaces and forms of existence. It enables and fosters the transformation of humanity into new qualities of intelligence. It seems that human forms of self-awareness can play an important role in transhuman systems and their development. Although it is difficult to implement human nature in digital representations and processing schemes, another self-consciousness self might emerge.

Researchers on transhumanism feature uploading, i.e. the process of transferring an intellect from a biological brain to a computer system through uploading, and anticipate a point in time "when the rate of technological development becomes so rapid that the progress-curve becomes nearly vertical. Within a very brief time (months, days, or even just hours), the world might be transformed almost beyond recognition. This hypothetical point is referred to as the singularity. The most likely cause of a singularity would

19 Cf. Amir et al. 2004.

be the creation of some form of rapidly self-enhancing 'greater-than-human intelligence'"[20].

The opportunity grows with robots and so do the capacity requests for our human system. We as human system are wired to grow awareness. We have taken on challenges throughout human history. It is in our nature to embrace them and thus to expand. Growing complexity is old and new at the same time: from being nomads, hunter-gathers, to farmers and settlers; from tribes to corporations and from regions to states and state unions; from knowledge passed on through stories to printed books and global virtual networks; from self-made products to handcraft to mass production and consumption; from states set up as dictatorship to revolutions and democracy; from segregating to integrating slaves; from discriminating against women and transsexuals to laws that protect them and give them equal rights; from analogue to digital communication. And now we are urged to embrace the next complexity. We are urged to differentiate and integrate artificial intelligence and robots into our shared human future.

Robots can enhance their learning mechanism, awareness and autonomy. It is crucial to take on a meta-perspective when it comes to enhancing human life. We see it now as our duty for the generations to come to enhance our awareness of our human nature. This provides us with the capability to make informed and wise decisions regarding the development of and co-creation with robots.

20 http://humanityplus.org/philosophy/ and cf. Kurzweil 2006.

Graphic 3: Increase humanism to meet the challenges of AI

Crossroad: Humanising or Dehumanising the Human System?

What type of prosthetic arm would you choose: normal fingers, wrist elbow, so that it functions like your own did? Would you like to have a flipper, so you can swim and dive better in order to save lives in the sea? Would you like to have a weapon embedded so that you can kill better? Would you like to have a camera embedded so you as an artist can film your work ? What else would you like to have included in this robot that can serve your goals? You choose. And should it learn? Should its programming be open or restricted?

Do we get more human or less human if we enhance ourselves through technology and biology? Can we really humanise ourselves, our relations, organisations and the world or will it be a disaster for humanity? Do we want to live in a world where we have more empathy, more humanness? Do we want to see poverty disappear and everyone, everywhere living a productive,

healthy and good life? Would we prefer to live as long as we desire, more joyously and in the best of health? Would we enjoy experiencing life within multiple substrates and platforms – exist in this material, physical world and also in a virtual and artificial environment?

The debate between bioconservatives and transhumanists[21] is deeply rooted in different interpretations of human nature, human freedom, and human dignity. Transhumanists think that humanity can also be possessed by post-humans. Transhumanists argue that current human nature is improvable through the use of applied science and other rational methods. Bioconservatives believe that the costs outweigh the benefits: in particular, they present their position as a defence of human nature, which according to them is threatened by human enhancement technologies. Bioconservatives see freedom and human dignity specific to human beings.

The literature against human enhancement[22] is characterised by two main concerns, namely that (i) enhancement may alter or destroy human nature, and (ii) if enhancement alters or destroys human nature, this will undercut our ability to ascertain the good in relations and social systems, as the good is determined by our nature.

Michael Sandel[23] emphasises effects on freedom, humility, responsibility and solidarity. Focusing on genetic engineering or genome editing, he sees the problem in undermining the child's autonomy. Through genetic engineering, the relationship between parent and child is interpreted as "disfigured": The problem for the designing parents lies in their drive to master the mystery of birth. It would disfigure the relation between parent and child and

21 Cf. https://en.wikipedia.org/wiki/Human_nature#cite_note-74 (download 15 March 2019).

22 Cf. Sandel, Michael J. (April 1, 2004). "The Case Against Perfection". The Atlantic, and Kass, Leon (2003). "Ageless Bodies, Happy Souls: Biotechnology and the Pursuit of Perfection". The Atlantic.

23 Cf. Sandel 2004.

deprive the parent of the humility and enlarged human sympathies that an openness to the unbidden can cultivate. Thus, genetic engineering increases parental responsibility as parents become responsible for choosing, or failing to choose, the right traits for their children, as genes become a matter of choice rather than a matter of chance.

Through the lens of sports, he argues that a genetically engineered athlete would have unfair advantage and additional responsibility over unenhanced competitors. Undesirable outcomes are often attributed to extrinsic values such as lack of preparation or lapse in discipline. With the introduction of genetic engineering athletes will bear additional responsibility, as they will be blamed for failing to acquire the intrinsic traits necessary for success. This can be extrapolated to society as a whole: individuals will be forced to shoulder more responsibility for deficiencies in the face of increased genetic choice[24].

A third aspect Sandel highlights is that social solidarity would disappear. Enhanced individuals would not opt into social insurance systems, because it would involve guaranteed losses for them. They would feel no debt to their community in terms of shared support in the face of uncertainty. He points out that without genetic engineering, a genetic lottery exists. For example, we do not have knowledge of whether we will remain healthy or not.

Following those arguments transhumans could pose a threat to "ordinary" humans and be harmful to transhumans themselves. Human enhancement could destroy democracy as we know it, since it would violate the ethical freedom of the unborn, subjecting them to decisions they would not be able to control or reverse. This irreversibly changes the symmetrical relations of equality that are characteristic of a constitutional democracy[25].

24 Cf. Sandel 2004.

25 Cf. Sandel 2004.

Nick Bostrom[26] argues that human enhancement technologies should be made widely available as they would offer enormous potential for improving the lives of human beings, without dehumanising them: for instance, improving their intellectual and physical capacities, or protecting them from suffering, illnesses, aging, and physical and cognitive shortcomings. In response to bioconservatives, transhumanists argue that expanding a person's "capability set" would increase her freedom of choice, rather than reducing it. Bostrom[27] states that humanism does not contradict the ideals of transhumanism. He argues that the proportion of people given full moral respect in Western societies has actually increased through history. This increase includes such populations as non-whites, women and non-property owners.

Following this logic, it will similarly be feasible to incorporate future posthumans without compromising the dignities of the rest of the population. He sees it as possible that posthumans, being genetically enhanced, may come to even higher levels of moral excellence than contemporary human beings. While he considers that certain posthumans may deliberately transform themselves to live more degraded lives, he also notes that many people contemporarily are not living worthy lives either. He finds this regrettable and suggests that countermeasures such as education and cultural reform can be helpful in curtailing such practices. Bostrom defends the freedoms of human beings, suggesting that ultimately, leading whatever life one aspires should be an inalienable right.

Allen Buchanan[28] takes an ethical meta-perspective with the argument that "good and bad" characteristics are part of human nature and human enhancement as well. Thus, changing the "bad" ones does not necessarily imply

26 Bostrom 2004 and https://en.wikipedia.org/wiki/Bioconservatism#cite_note-:0-23.

27 Bostrom, Nick. "In defense of posthuman dignity." Bioethics 19.3 (2005): 202-214. And https://en.wikipedia.org/wiki/Bioconservatism#cite_note-:0-23.

28 Cf. Buchanan 2009. "Human nature and enhancement". Bioethics. 23(3): 141–150.

that the "good" ones will be affected. He argues that the way we interpret the good is independent of human nature.

No matter how the future turns out we have to play an active role. We do not know for sure what is possible in terms of biology and technology, but we are sure that we have to do everything possible to ensure and increase our human freedom and dignity. Thus, we have to increase individual and societal awareness and responsibility for humanity and the human system.

We need to inform ourselves so we can be more than ever aware of the crossroads regarding humanity, solidarity and freedom of choice. To inform ourselves is needed in order to take on responsibility for our choices, our actions, and human dignity. The process of informing has to be continuous and guided by reflecting on current values and value systems.

Graphic 4: Process of informing

Humanity: Dilemmas and Choices

"Ambiguity and Freedom" lays out the philosophical underpinnings of Simone de Beauvoir's[29] stance on ethics. She asserts that human beings are fundamentally free, a freedom that comes from our "nothingness," which is an essential aspect of our ability to be self-aware, to be conscious that "... the nothingness which is at the heart of man is also the consciousness that he has of himself." But we are also a thing, a "facticity," an object for others[30]. The ambiguity is that each of us is both subject and object, freedom and facticity. As free, we have the ability to take note of ourselves and choose what to do. As facticity, we are constrained by physical limits, social barriers and the expectations and political power of others.

De Beauvoir rejects any notion of an absolute goodness or moral imperative that exists on its own. "... there exists no absolute value before the passion of man, outside of it, in relation to which one might distinguish the useless from the useful."[31] Values come only from our choices. Human freedom can exist only in concrete projects, not in the abstract. Freedom requires the realisation of concrete ends, of particular projects[32].

Although de Beauvoir accepted that "existence precedes essence", she was more attuned than Sartre to the ways in which our facticity – the facts of our existence – influence our lives. For example, we can't choose our bodies or the economic and social situations in which we find ourselves, and often we see other people as the immutable bane of our existence. De Beauvoir argues that although we are not free from our natural condition, it does not define our essence, which is how we create ourselves out of our facticity. We

29 De Beauvoir, Simone (1948). The Ethics of Ambiguity. Translated from the French by Bernard Frechtman. Citadel Press, New York.

30 See also in this article boundary objects in: our bodies are vessels of wisdom.

31 De Beauvoir 1948, 38.

32 Cf. De Beauvoir 1948.

do not live only to propagate the species as animals do; rather, we are beings who look for meaning in our lives, and we do it by taking risks to overcome ourselves and our situations. This is human nature: perpetually seeking to escape our natural condition, to transcend – surpassing the given – towards self-chosen, concrete goals. But this isn't at all easy, and it is one of the reasons why anxiety is a fundamental theme of existentialism. To be human is to live in ambiguity because we are forever caught in a tension between the facts of our lives and the will and choice to overcome them.

Natural obstacles provide a different sort of limitation. To transcend is to recognise our resistances and failures, and to rebel against them creatively. This perspective matters because it emphasises that, while there are fixed elements to our being, we are not fixed beings, since we are free to choose our projects. Neither biology nor natural obstacles limit our futures to a great extent. How we live out our human nature will vary because we give different meanings to our facticities. An authentic life is about acknowledging these differences and stretching ourselves into an open future. It does not follow that this openness is unlimited or unconstrained. We are limited, but mostly by our own imagination.

On the one hand, de Beauvoir elaborated the facticity of our biology as fixed and on the other hand, that we have a choice of which perspective to take and how to manage it. This choice is our human nature, human freedom, and human plasticity. In order to be able to make human plasticity fruitful for our future human system, for shared co-evolution, we need to increase our capability to become aware of our choices in each situation and the consequences that come with the choices, especially when it comes to changing our biology (transhumanism) and the impact on our shared life.

Seventy years later in 2018, Vita-More boiled it down to this: each person should have the choice to enhance their own body, to live longer, e.g. when deciding for nano-medicine – robots to repair the body – just as people can

choose nowadays to get prosthetic arms connected to the brain and feel the warmth when they shake hands.

With Artificial Intelligence and robots, the facticity of our fixed biology is in question. Our freedom of choice is expanding: what is unchangeable matter, and what is energy that we can move must be newly calibrated. What we can still say is unique to humans is the plasticity of our freedom of choice and along with this the responsibility for the consequences of our decisions and actions.

Graphic 5: Freedom of choice to enhance the body

Utopia: Focus and Experience to Materialise Future

What do these prospects imply for us as a human system now? What capacity are we capable of? What do we see as necessity to be capable of owning our future? How should we react? How much time do we have? Should we prepare? Can we prepare? How do we want to live our dream of a better life? Can we prevent a nightmare? Can we prepare for a nightmare? Or do we wait for the incidences to overcome us?

Knickrehm[33] identified five different schools dealing with AI in the corporate world at the moment:

The Dystopians focus on the Darwinian struggle that machines will win. AI will take over middle and high skill jobs, robots will perform low skill jobs. Falling incomes and unemployment will be the consequence.

The Utopians focus on unpredicted wealth. The concept of singularity: human brains will be downloaded; computers will do the cognitive work, robots will do the heavy lifting, and people will apply their talents to meaningful pursuits. A universal income programme will cover basic needs.

The Technology Optimists focus on a leap of productivity that will produce a digital bounty, creating economic growth and improvements in living standards. The bounty will not automatically be distributed evenly, so investment in education, training and technology is needed.

The Productivity Sceptics focus on income inequality and climate change worsening. The best situation will be stagnant growth in advanced economies.

The Optimistic Realists, looking at previous technology waves, focus on gaining productivity through technology which will advance high-performing companies and workers. Middle and low performing companies and workers can easily be automated.

33 Knickrehm 2018, 149ff.

Bloch's "The Principle of Hope" was originally to be called "Dreams of a Better Life". He highlights the ways in which we hide and express our hopes in dreams and fairy tales, love, science fiction, world peace. Utopia contains all expressions of hopes for a better future which cannot yet be lived.

In his "Ontology of Not-Yet Being" Bloch opens a new space and speaks of nature, in which we are continually building a concrete utopia: a space in which a growing together of tendencies and latencies within the relationship between material reality and human intervention is always full of potential but which cannot be realised because the material conditions for their realisation is not yet complete.

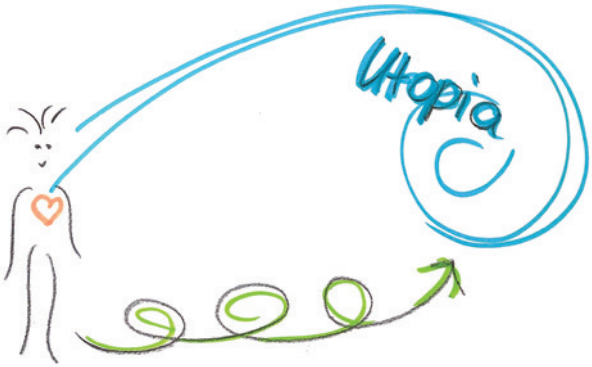
Utopia is not defined as a pre-existing programmatic state which has to be reached under a wise system or leader, but as a self-created, autopoietic, with its own elements and development, a process driven by us human beings, by our material hunger as well as our dreams of overcoming survival needs. The society we ended up with is therefore interpreted as the product of the process of getting there.

Creating ourselves by visioning and doing: the process of creating is conducted by those who are made by the process. Awareness of co-creation capacity enables our utopia to be realised jointly. Our futuring in the here and now leads our actions[34] and manifestations in this world. Thus, we change ourselves and the world while we are experiencing our thoughts and actions in the here and now and learning from them. In the here and now we can decide to open space and thus awareness for the utopia or dystopia to land. The more space we open for co-creating utopia the more likely the dream can become positive – even when the content is different than imagined, as our actions follow our positive dreams or nightmares.

34 Cf. Scharmer 2009.

We generate and live our future in the here and now together (Co-Vival as process): what we do today (just now) influences our opportunities and potentials in our future. In the here and now the future and past resonate with each other[35]. The fine difference in the future will be how we together can collaboratively permeate the state we are in. The embodiment of the current situation and the hopes for the future are generated by each of us through our joint imaginations and actions. Once we dare to look into our inner space and bring our intentions on to the surface, we can prepare ourselves for our self-created future to come. It requires hope for a human co-created better future.

While the proponents of utopia imagine the possibility of a better world, dystopia follows the principle of hopelessness. All actions follow our emotional images of our future and thus we materialise our future. The choice and responsibility are ours each and every second to decide what we want to bring into this world. It might contain many more inner findings and fundamental issues than we are used to externalise in reflective processes.



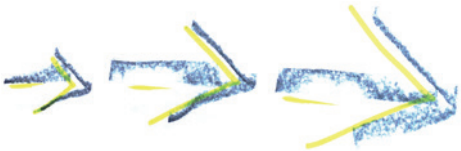
Graphic 6: Utopia shapes the path to manifestation.

35 Cf. Scharmer 2009.

Capacity Building: Horizontal and Vertical Growth

We differentiate qualitative (vertical) and quantitative (horizontal) growth. Capacity building requires consciously creating ourselves, our inner and societal awareness-qualitative utopia, our future space in order to build our here and now and our future. We can differentiate between two principles for approaching the world[36]:

The horizontal approach grasps and produces more and more of the world, more product innovation, more of the market, more dividends, more customers, more knowledge, more writing, bigger apartments, more relationships, etc. according to the same logic. We direct our glance primarily outwards, towards others, towards competition, the neighbours, etc. We direct our view towards the world, and thereby at the same time we are separated from the world. If this approach to the world is not enriched in a qualitative way, life in the eyes of the observer gradually turns negative; there is a downward spiral of fear, emotional decline and demotivation.

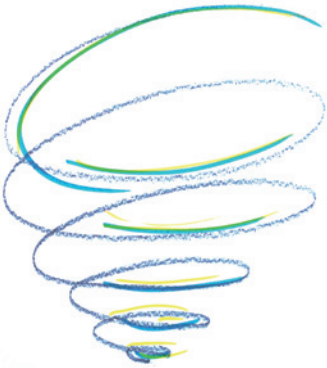


Graphic 7: Horizontal world approach – more of the same quality

The vertical approach involves continuously differentiating and integrating. It concerns qualitative development and leads to denser, deeper, broader, more interconnected awareness of ourselves in our interplay (circularity) with the world. In the area of moral development, we talk about various levels of quality (spiral development). We connect ourselves to the world and

36 Cf. Spindler/Steger 2008.

this connection forms within us in a more conscious way. We are in the world and the world is in us – holistically. The main focus here is co-evolutionary connection; the development of relationships with and within the corresponding context.



Graphic 8: Vertical world approach – Development of different qualities

How do we reach capacity building that serves collectives and humanity? A vertical approach to the world is the pre-requisite for increasing complexity – and an inner qualitative handling for the outside of quantity and quality. In the last seven decades this concept has been comprehensively developed and empirically researched[37]. The seven to nine stages of development can be described as three points of focus: I, We, Us.

'I' FOCUS (preconventional, magical perception and action) is driven by impulses and is self-oriented. Stimulus and response lie close together. Motto: 'I am at the centre of the world, one with the world and conquer the world'. The 'Ego' is in the foreground and believes its own perception reflects the reality of the outer world. The assumption is that rules are unchangeable, and justice and punishment depend on authority. One's own moral judgement is

37 Cf. Loevinger 1976, Rooke/Torbert 2005, Laloux 2014.

oriented towards punishment and obedience as well as on cost-effectiveness and reciprocity.

Fear is the emotion. Safety and survival are the primary needs of the natural, unmediated, emotionally unreflective system. If security is experienced as insufficient, individual and collective anxiety increases. Stimulus is followed closely by response. To give assurance of survival would then be a source of short-term support. To place a reflective/clarifying focus on justice when working together (rules, structures, discipline) would be the next sustainable measure for the development of the system and its individuals.

'We' FOCUS (conventional, logical perception and action) is factual, rational, linear and community determined. Motto: 'As a community we need a just and reasonable world, which has systems and rules.' We recognise that the rules of a system (group, organisation, society) are set up and can be changed. We place increasing value on justice and equality. Moral judgement is oriented towards reciprocal, interpersonal expectations, relationships and agreements (the 'well behaved child'), as well as towards the social system and social conscience (law and order).

Aggression, frustration, jealousy and greed are the emotions. Justice for all is the main need of the socially disciplined system. If the current situation is felt to be unjust, anger spreads against the establishment. In this kind of culture, finger-pointing is normal. To recognise the 'unjust' situation as it is could be the next step for the system to co-create its own self-organised system.

'Us' FOCUS (postconventional, integral perception and action) is relativising, systemic, differentiating and integrating at the same time. There are many truths throughout the world, we can shape them ourselves consciously – collectively and with responsibility. We generate individual and collective meaning – for ourselves and our community at the same time. Our moral judgement orients itself towards the social contract associated with individual rights and with universally ethical principles.

Us: Acknowledgement, in terms of the acceptance of difference, otherness, foreignness, and uncertainty, is possible. Grief over what is not optimal, functional, fair, tailor-made, etc., can be emotionally expressed in words and rituals. This integrated letting go (not alteration or exclusion) allows for newness, for collective self-renewal, for the futuring, shaping, manifesting, responsibility of our actions, our leadership, our organisations and society.

Kant's 'imperative' is seen in this view: 'Act only according to that maxim whereby you can, at the same time, will that it should become a universal law.' We judge morals and punishment as connected to, as well as independent from, authorities. When making moral decisions, we take into account the intention of the person acting and differentiate between our own views and those of others. We recognise differences and integrate them. Feedback, along with what is new and what is different, are gifts for our own development. The main priority is essential renewal as an act of co-creation for collective future betterment. Scharmer (2008) calls the US focus 'seeing and acting from the whole'. This acting through awareness is also discussed under the keyword 'mindfulness'.

When acting and leading with an 'Us'-focus, we humans are most likely to be able to act in a way that benefits the whole. We have a complex awareness and an ability to decide where we recognise, evaluate and set in relation to each other various moral principles and approaches to the world. We can recognise different approaches (fear and love, ego and unity) and treat people according to their awareness possibilities.

We can become aware of a big picture, the system perspective, and different spaces needed in which people and robots can be brought into connection with each other for the sake of shaping the future.

In the 'I' and 'We' mode, we embrace alone; in the 'Us' mode, we embrace collectively the 'I/We/Us' forms of awareness.

In connection with these three states of awareness, the following predictions can be made:

- Development from one stage to the next takes place as mutation, as transformation. Through coping with unfamiliarity, irritation or crisis, the next new pattern of behaviour becomes possible. One's individual world view and one's own behavioural logic change fundamentally from one stage to the next. The way one acts becomes more complex, more comprehensive, more differentiated and more integrated.
- Under stress we often fall back on previous stages of development. We experience this as tunnel vision, being unable to think straight, or something similar. The patterns of behaviour are not replaced; they remain alongside one another.
- Not all humans develop themselves throughout their lives, in terms of a broadening approach to the world and scope of action. Whether someone wants to develop themselves can only be decided by each person or system.
- People who remain at a less complex stage of development see and act from their current behavioural logic. They do not recognise the further complexity (differentiation and integration) of the subsequent levels as helpful.
- People with more differentiated-integrated awareness understand people with less differentiated-integrated awareness and can support them. Indeed, they also carry these awareness qualities within themselves.

Above all, the Us awareness has implications for the quality of their interventions and their impact. The choices, growth and capacity for co-creation for the whole can, through the development of one's own awareness, become more conscious, more complex and more integrated.

Shared possibilities for the future suddenly come into focus. This quality of embracing signifies interconnectedness within a state of freedom and makes reciprocal commitment possible. Keyword: interdependence.

The quality of embracing and the capacity to embrace comprise the site from which the big picture arises before our inner eye. Which of our feelings no longer underlie the stimulus-response pattern is a deciding factor in what kind of quality of embracing and what kind of power we can master as individuals and as responsible people for organisations, collectives, and society.

A system's effectiveness when it comes to renewal depends on the extent to which its collectives are able to embrace: to recognise, differentiate and welcome. The quality of embracing provides information about the nature of our awareness. The more levels of awareness we can identify, acknowledge and support, the more of the system's renewal-synergies we enable to be stimulated in synergy with others from our inner core.

Graphic 9: The quality of embracing

Our Soul: Enhancing Us as Human System Beyond Scientific Proof

The complexity we can perceive and process in a vertical, qualitative, integrative-embracing way is the equivalent to our capacity to perceive and imagine utopia, and subsequently to the comprehensiveness of our actions and manifestations. What connects us as individuals and human system with complexity, the whole, a bigger sense-making entity? What gives us meaning in our lives? What brings life to our body? What makes us lively and connected?

To answer these questions, we have to go beyond. Tolle calls it beyond thought[38]. We discover humanity beyond the facticity, beyond physics, in the realm of what Aristotle described as metaphysics. The principle subject is "being qua being". We can no longer prove it with our five senses; the mechanics are thus beyond hard evidence of science. It is beyond the facts and the known. Thus, we open ourselves for the bigger unknown. Gilligan[39] calls this realm the 'quantum world', the 'source of light'. When we reconnect to it, we can access 'wholeness and peace'. Tolle talks about 'the oneness with all life'[40]. And from that place of oneness we can heal brokenness and addiction and reach out to create and generate new opportunities.

In this concept the universe is alive and universal intelligence surrounds us; we need to connect to it with our senses, through our body, our somatic intelligence[41]. This somatic intelligence allows us to meet the unknown ahead in a comprehensive and focused way. It enables us to form energy into matter, to materialise. Our ability to rearrange and give energy a direction provides us with the opportunity to give artificial intelligence a form that connects it with us humans and thus with our souls and all sources of life.[42]

38 Cf. Tolle 2009.

39 Cf. Gilligan 2012.

40 Cf. Tolle 2009.

41 Cf. Gilligan/Schüller 2017.

42 Cf. Drexler 1986.

When we form a multidimensional utopia for artificial intelligence in our human life we enrich our utopia with energy. Utopia expands with each of our emotions, thoughts, words, projects and endeavours. We put it into practise in each moment of the here and now.

In his work on the soul, Gary Zukav[43] distinguishes two perception patterns of a personality:

With the five-sensory perception we are aware of everything we can prove scientifically with our five senses. From this perception we are alone in a universe that is physical (facticity):

- The physical world is given.
- We dominate others and the world in order to survive.
- Intentions have no effects.
- The effects of my actions are physical and have to be proven.
- Not all my actions affect others.
- We think things through and do not recognise and trust intuition.
- The personality is not aware of its own soul.
- We learn through fear and doubt.
- The ego is in the foreground of the personality.
- Power is understood as external power.

With the multisensory perception we are never alone; we are connected to the soul and everything. The universe is alive, conscious, intelligent, and compassionate, beyond scientific and physical proof:

- The physical world is a learning environment that is created jointly.
- The intention behind an action determines its effects.
- Every intention affects both us and others.
- The effects of intention extend far beyond the physical world.

43 Cf. Zukav 2014.

- Different thoughts create different currents of emotions and different energies.
- We see emotions as currents of energy with different frequencies, negative lower with less energy, positive higher with more energy running through our system.
- Intuitive knowledge is processed in emotional currents, flows and life energy.
- We follow our heart, which enables us to be compassionate.
- We allow ourselves an openness and an open heart toward our life and the universe with a sense of trust and hope.
- The connection to higher intelligence, to pure life, is possible through the connection of our body and our heart with our soul.
- We learn love and how to be alive and connected through awareness, consciousness, trust and wisdom.
- The personality is able to connect to our soul and seeks to align with its own soul.
- The flow of life energy can heal our souls and our human species (human system).
- Consciousness represents high frequency and brings light.
- Power is understood as authentic power within us.

This difference in the capacity of our perception has crucial implications for the future of our human system as it defines our frame of reference and thus our capabilities for Co-Vival. How can we become aware of our soul? How can we connect to it? Zukav goes further: the question is, is our personality aware of it or not? There is a continual interaction between our personality and our soul. If a personality decides to become conscious of its soul, it takes on responsibility for the consequences and thus step by step becomes more powerful. Our personalities increase the awareness that we are not our emotions; we have emotions and we can individually choose with each step, each second, in which direction we want to go. We are able to decide. This awareness of our individual and collective choice makes the difference. The

difference is called humanity. We as the human species (each of us) have the opportunity to choose, each day, with each thought, feeling and action whether to be conscious or not: Conscious evolution through responsible choice is the accelerate way of evolution of the multisensory personality, and the five-sensory personality that is becoming multisensory. Responsible choice is the conscious road to authentic empowerment[44].

It is the awareness that we have the opportunity to choose, to live our decision-making dynamic consciously and to take on the responsibility for the consequences for our choices. That includes inserting our will and intention consciously into the creative cycle through which our soul evolves and our personality enters consciously into the own growth[45].

As multisensory personalities we are aware of our intuition as a perception beyond the physical senses that is meant to assist us. It gives us hunches to ensure our survival, to serve our creativity and our inspiration like a sudden answer to a question. Zukav calls it 'a walkie-talkie, so to speak, between the personality and the soul.'[46] He sees the soul as the force field of our being. The intuition is the voice of the non-physical world, the voice of the non-physical reality. It is the communication system that releases the five-sensory personality from the limitations of its five-sensory system that permits the multisensory personality to be multisensory. 'The five-sensory personality processes only the knowledge that it gathers and substantiates through its five senses. The multisensory personality acquires knowledge through its intuition, and, in processing that knowledge, aligns itself, step by step, with its soul. The conscious path to authentic power requires recognition of

44 Cf. Zukav 2014, 121.

45 Cf. Zukav 2014, 125.

46 Zukav 2014, 70.

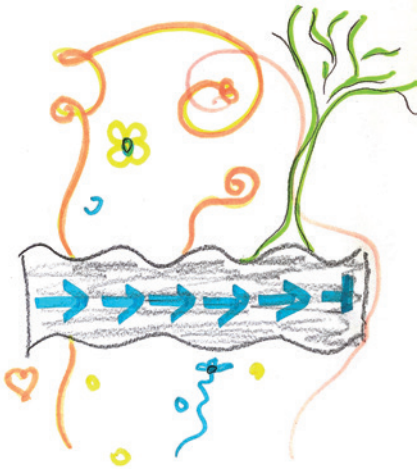
the nonphysical dimension of the human being, of the soul, and a growing knowledge of what the soul is and what it wants.'[47]

To become aware of the soul is the key for Zukav. In order to develop and nurture our mind and our body, it is necessary to realise that we have a mind and a body. To heal directly at the level of the soul it is first necessary to acknowledge that we have a soul. The problem is that the cognitive sense and the current concept of science cannot produce proof of the soul: ' … a new discipline … that has the focus of the soul of the human being. Human evolution, and the spirit in matter, is a very specific evolution. It is not haphazard. It is not chaotic.'[48]

Beyond our thoughts we can perceive multidimensionally and find the metaphysics, the quantum world, the light, the source, the soul. Our soul opens us. Our multidimensional senses and perception can grow. We find access to our purpose and the human condition in ourselves and can access wholeness and unity for a meaningful utopia. Connectedness among humans asks for the connection to something bigger. It requires genuine connectedness. This process goes hand in hand with connecting to our inner senses, the intuition and self, and overcoming fear of the unknown. Positive perspectives and hope generate unity. In this way we gain the capacity to generate our human system as utopia and can materialise it.

47 Zukav 2014, 188.

48 Zukav 2014, 184.



Graphic 10: Opening up for a multidimensional world.

Our Body: A Translating and Integrating Vessel of Wisdom

We can utilise multiple intelligences. Imagine the prosthetic arm-robot: it has a technical intelligence on its own. With our body we can experience this prosthetic arm and connect and learn with this technical intelligence. With our soul connection we can give our actions with this prosthetic arm sense within the human system and for our individual lives. Our body is our vessel to access and translate the different intelligences. It is the vessel that holds the space for our consciousness so we can integrate the intelligences and materialise something new in this world. Our body connects us with the source, the energy that we need for co-creating our utopia. If we do not consciously generate the future, the future is out of our hands. It is the precondition to manifest shared future, utopia, consciously and to realise Co-Vival as vehicle: a robot-being that is helping us on our journey to transhumanism; as process: co-creation, as shared leadership, that allows us the best way of creating and sense-making our lives together as humans and robots;

and Co-Vival as outcome: the transhuman, the new human species of the future, the embracing, inclusive, complexity-enhanced new type of being.

Martha Graham, the modern dancer, expressed the dance process as translation from energy through action: 'There is a vitality, a life force, an energy, a quickening that is translated through you in action, and because there is only one of you in all of time, this expression is unique. And if you block it, it will never exist through any other medium and it will be lost. The world will not have it.'[49]

Beyond thought we can find different intelligences. The different perceptions relate to the capacity to use different intelligences, as inputs can stem from a linear thinking to multidimensional body awareness (embodiment), and the processing of different sources of energy and intelligences.

How can we access universal intelligence, the energy, the light, with our body with our multidimensional perception? How do we process it? How manifest is the reality we are in, the context we are operating in? Stephen Gilligan describes this process as generative transformation: 'Generative transformation is possible when we keep the channel open to this creative light source. … if you are confident that you can let go of your mental thinking and allow something underneath to safely catch and support you, a great freedom is achieved.'[50]

When we relax and tune into the body the mental thinking goes into the background. We open space within us by experiencing the quality of our subtle body sensations. These sensations come into the foreground of our consciousness. Our capacity for awareness for this generating process increases. By centring in our body, we invite the energies and intelligences to

49 As quoted in *The Life and Work of Martha Graham* by Agnes de Mille 1991, 264.

50 Gilligan 2012, 127.

join in, a mind-body-soul integration. We resonate with the here and now beyond our five senses[51]. We can open the space bigger than the problem and become aware of the bigger picture and the sense for our being and actions.

With our body we are able, or not able, to access and hold intelligences that are bigger than our mind, more in complexity and awareness. The awareness of our body sensations is the door-opener to our Co-Vival capacity[52]. Centring and experiencing body sensations, we can reach out to our utopia and manifest energy into matter.

Our body is enabler for AI technology: imagine you get a prosthetic arm and you can feel the warmth of the skin of your beloved partner again. It is because technology is connected to your brain. The arm is yours and at the same time it has an artificial intelligence; it learns how to feel[53]. When we are able to embrace technology in our body as our own intelligence, we can feel like a complete entity again.

Our body holds the inner place from which we observe and reflect on ourselves and others, connect with ourselves and others, transform and make judgements about ourselves, others, and the world. Our body contains our brain. The brain is part of our body[54]. It is the place from which we co-create and bring the foundations for future possibilities into reality. The development of awareness requires conscious perception of one's own inner experiences; events, thinking, feeling, and acting in thoughts and emotions in relation to oneself, other human beings, and the world. This development is in accordance with one's level of awareness of patterns such as conventions, rules, structures, processes, principles, cultures, values and norms, of individuals and social systems (teams, organisations, and society).

51 Cf. Gilligan 2012, Zukav 2014.

52 Cf. Vita-More 2018 and the CEO Case in Spindler/Stary 2017 p. 1027.

53 Cf. Vita-More 2018.

54 Gilligan/Schüller 2017.

Our perception of our inner senses, events and experiences requires the inner place from which everything begins. The more we are able to open this inner space the more complex our awareness can become and the more fully integrated[55]. The more we individually develop inner complexity and integration, the more awareness occurs concerning our own relationship with the energy beyond, the more our inner picture becomes interwoven with the outer picture in a multifaceted way, the more possibilities we can apprehend in terms of future potential, the more future we can bring from our utopia into our present and the more we can materialise and transform through our inner space in our outer space.

Our body is our individual container and transformer of everything we can perceive within us and in connection in this world and beyond. Our body perceives and integrates different intelligences. This wisdom can surface through self-awareness from the inside out. Thus, we can make choices that connect us with the bigger realm.

Graphic 11: Our body is a vessel for intelligences.

55 Scharmer 2008.

Spacing: Open Capacity for the New to Surface

How much future potential we embrace and integrate depends on how developed our awareness for our inner place is. Body awareness opens for us the inner space[56] from which we reflect and make judgements (or not) about ourselves as individuals (and systems), about others, and about the world. It is our space for moral judgement, it is the space for humanity. And it is the place from which we consciously create and bring the foundations for future possibilities, our utopia, into reality. Our own inner awareness is the seed for awareness of other human beings and the world. Thus, the development of awareness requires conscious perception of one's own thinking, feelings, emotions, sensations and acting in relation to oneself. The relation to oneself is in accordance with one's level of awareness about external things like patterns, including conventions, rules, structures, processes, principles, cultures, values and norms, of individuals and social systems (teams, organisations, and society).

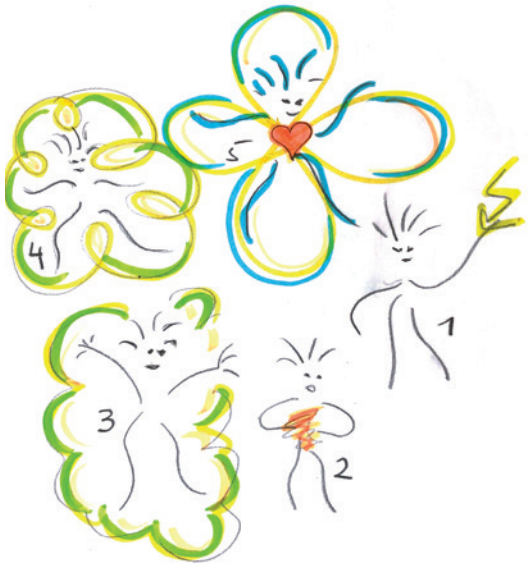
Subsequently our perception of inner events and experiences is the magical inner place from which all growth begins. The more fully integrated we become as we develop our personality, the more awareness occurs concerning our own relationship with the world, the more our inner picture becomes interwoven with the outer picture in a multifaceted way, the more possibilities we can apprehend in terms of future potential and the more future we can bring into our present.

In this inner space between stimulus and response lives our current force and future power and also our humanity, a self-created clear space for our freedom, our intention, our potential, our purpose and also our own self-determined individual growth. The potential for the shaping of our future, for ourselves, our collaboration, our leadership, our collectives, organisations, and for the shaping of the whole world.

56 Gilligan 2012, Gilligan/Schüller 2017, Spindler/Stary 2017.

To respond in an unmediated, unreflective way greatly narrows our scope for action as we recognise fewer connections and complexities. When we observe ourselves without reacting reflexively, a space is opened up between our own perceptions and our own reactions[57].

The inner place from which we recognise and act, and the quality of these actions, is connected to the discovery and growth of our own inner space in relation to the world. Spindler und Stary[58] summarised a Model of the Process of Spacing derived from case studies and theory. The process occurs in several phases of discovering and exploring inner and outer spaces and is based on reflecting and body awareness.



Graphic 12: Process of inner-outer spacing

57 This stimulus-response following an automated, habitual pattern, is named 'downloading' by Otto Scharmer 2008.

58 Spindler/Stary 2017.

Phase 1 –Triggering and Intentioning for Renewal

Individuals act in embodied environments. At a certain point, an individual initiates the process of renewing, even willingly exposing him/herself to risks never experienced before. This inner or outer trigger corresponds to becoming aware of the readiness for qualitative growth. It often happens when the individual decides to stop saying, 'I am too busy right now, but I need to keep the need of renewing X in mind' and the like, thus switching to a reflected mode of consciousness, and finally, being. Thereby, a wide range of contextual factors related to the person and the social-physical-political environment needs to be adjusted, depending on the analysis of how a given situation is perceived. As perceptions are traditionally pre-shaped prior to the actual experience, each individual needs to identify her/his borders, i.e. sensors, boundary objects, and interfaces with her/his environment.

Phase 2 – Inner Preparing and Exploring for Renewal

This phase involves the concept of self-managed reflective practice that has received considerable attention so far. Becoming aware of structures embodied in our own perception is a complex endeavour, as findings from beginning self-reflection indicate. It could be termed 'first person perception', as an individual has to expose him/herself to separating cognitive concerns from deep-rooted socio-emotional beliefs and desires. In this phase, individuals even need to loose their structures and start accepting chaos. This is anarchy, in the sense of non-hierarchical, inner and outer structures, processes and potential benefits of relating to bodily-grounded processes. The latter constitute cognitive, emotional and somatic intelligence.

Phase 3 – Exploring and Self-managing Outer Space

Once an individual is able to get along with the coalition of cognitive and bodily-routed processes including emotional and social intelligence, she/he

is ready to explore her/his environment utilising this connection of entities. In this phase the existence of a gap between inner and outer space becomes evident, in particular as self-awareness has a non-linear function, accounting for evaluation, comparison, and description.

In order to reduce complexity, a System-of-Systems (SoS) awareness can help to identify entities of concern and their links to other entities establishing their environment. When one locates oneself, space is opened up: a self-contained, self-responsive, self-responsible entity in the environment, we could say the first step to SoS perception has occurred, as the individual is considered as a system, interconnected to her/his environment. The individual is self-empowered in relation to the outer space. The second step in self-awareness can be achieved by establishing the internal space in its coalition with the socio-emotional, bodily encoded processes ('guts'), as this alignment constitutes a relation between two entities of the (already identified) system 'individual'.

Phase 4 – Spacing for Space Opening and Connecting Anew

Once the outer space has been explored, the relationships between how events from the outer space should be perceived and processed need to be sharpened. Conversely, the individual needs to clarify how these conscious cognitive and socio-emotional processes can be introduced.

The dynamics between inner and outer space need to be adjusted to co-create coherent patterns for a shared future. In terms of anarchy, patterns are allowed to break down. The individual is in principle open to chaos or other structures, to any type of input, and to inner processes becoming tangible for the outer space. In this way, the individual has accepted continuous co-creation of all systems involved and is ready to be an active part of that process for the shared future.

Phase 5 – Living Your Co-creating from the Inside Out

This phase forms the basis for finalising the process and is the beginning of the next inner-outer spacing. Let it grow. It allows an individual to be fully active and empowered in co-creating. In this shared state everything is possible. Complexity as potential can be fully brought to life. The individual processes creation along her/his system relations and provides growth to other systems along these relations. In this phase the individual can connect fully in order to be part of the whole (outer space).

> *Between stimulus and response there lies an open inner space of humanity as freedom and responsibility. In this open space lies our own power in deciding how to respond. In this response lies the force of our growth and the freedom we ourselves have opened. Co-Vival needs inner body spacing as an essential condition to open oneself to the outside world, to integrate and master the yet unknown differences and challenges ahead.*

Co-Spacing: Manifesting Shared Power for Utopia

Space and power for manifesting future are connected. Individuals gain authentic power by claiming their inner space. To be able to access the body sensations as information about one's own will is essential. To claim one's own space means stepping into an empowering process. Giving space to others for claiming their own individual mind and body space is empowering others and leadership that supports a multidimensional and multi-intellectual awareness[59].

Opening space within us as individuals for collaboration and systems is the spark for co-creating our future space. Thus, we enable ourselves and our

59 Spindler/Famira 2019.

society in a way that provides quality to our utopia. Each equal relationship opens complexity and opportunities for shared future creations: Hannah Arendt (2011) defined practical wisdom in her book *Vita activa*[60] as an orientation, a recognition and judgement perspectives in connection with the world[61]. She refers to knowledge about how we are connected to the world, how we interact with it and what our concept of a good life is. The highest and most important relation to others is an active life embracing the future potential of true realisation of human freedom. Each mutual action finds its meaning in recognising the action as part of a larger movement. In Arendt´s concept, power can be realised when we actively create our reality: 'While strength is the natural quality of an individual seen in isolation, power springs up between men when they act together and vanishes the moment they disperse. … Only where men live so close together that the potentialities of action are always present can power remain with them … Power is always … a power potential and not an unchangeable, measurable, and reliable entity like force or strength…'[62]

This approach defines our actions and co-creations as a shared interest for potential that can emerge among us. An active social life (practical wisdom) is a condition of power and vice versa. Through acting together, we gain power potential, which corresponds to the condition of plurality in relating to each other. For the same reason, power can be divided without decreasing; in fact, the opposite occurs – it increases. We can share power, responsibility and leadership. And living this creating interaction is a condition for and

60 The title of the English version is The Human Condition (1999).

61 Hannah Arendt refers in her work to Aristotle, who describes practice as action that deals with what is changeable in the given world. There is no permanent valid rule for this; there are no conditions existing outside time or rules for what is good, what is virtuous and what is just. Practice in this sense means responsible human action which requires human freedom, since valuable, ethical action for the community is an end in itself. Practice derives from the Greek word phronesis and means practical wisdom. (Cf. Spindler 2013)

62 Arendt 1999, 200.

result of individual freedom and dignity within organisations and thus also in society. Arendt argues that freedom does not pre-exist in the organised community but is constructed there, as the common space to which its equal members bring their own uniqueness and create something of lasting value such as an organisation or a state. 'Power is actualized only where word and deed have not parted company, where words are not empty and deeds are not brutal, where words are not used to veil intentions but to disclose realities, and deeds are not used to violate and destroy but to establish relations and create new realities.'[63]

Our capacity to analyse ideas, wrestle with them, engage in active shared practice and experienced learning from our actions is what makes us uniquely human, socially alive and powerful together. In fact, she sees this power as the element that gives us a reason to create our future potential together; it is the reason we build organisations. 'What keeps people together after all fleeting moment of action has passed and what, at the same time, they keep alive through remaining together is power. And whoever, for whatever reason, isolates himself and does not partake in such being together, forfeits power and becomes impotent, no matter how great his strength and how valid his reasons.'[64]

We interpret her definition as connecting us anew with our human dignity, our individuality, and responsibility for our collectives beyond downloading old shared power patterns[65]. Power for our shared future is the connection among humans as well as between humans and robots creating new realities, as a lively nexus between the world and energy for life creation. This gives leadership systems and organisations a different sense in our complex

63 Arendt 1999, 200.

64 Arendt 1999, 201.

65 In her book *On Violence* Arendt uses the term "harmony" to refer to totalitarianism. Arendt does not see this as a mystical, ego-centred wholeness and defines a boundary between it.

society. For organisations, current terms for this include Corporate Social Responsibility (CSR) and sustainability as well as sense-making and transformation[66]. The way we lead ourselves and organise ourselves together is what our organisations have become socially in relation to the world and also in relation to us as individuals in this society. "Power for our shared future" focuses on reflective cooperation, responsibility and emancipation, mutual actions that expand the freedom and activity of others in any form of collective social construction, e.g. team, department, corporation, network, state or society. The possibility for "power for our shared future" has to be given and taken and if necessary defended; the space for it has to be guaranteed and fostered. Arendt (1969) goes so far as to say that at certain moments this type of power needs violence to create and maintain itself.

Power takes on another quality in shared futures. It is enriched with uncertainty, re-developing step by step. Its allocation becomes a matter of consciousness and negotiation. The issues: Who has the power – the robot or the human? What will happen when I share my power with the robot? Will I lose control? Become part of a shared space between humans and technical systems. This space that has to be created as joint experiencing and learning.
What requires special care is responsibility for the bigger whole, for the organisation and for society. Will it always be directly controlled by humans or somehow linked to them?

66 With focus on organisations we can find case studies that deal for instance with "Building a Collaboration Capability for Sustainability: How Gap Inc. is Creating and Leveraging a Strategic Asset". (Worley, C.G. & Feyerherm, A. E. & Knudsen, D. 2010) We also find companies like that of Eileen Fisher, which produces and sells and provides awards for sustainable businesses.

Graphic 13: Who has which power?

Co-Vival: Co-creating Life with Robots

We are created to reinvent ourselves as race over and over again. With AI and robots, we are in the midst of our self-made system-complexity expansion, in an accelerated state, our systems as well as individually. With relations and interactions, we can empower ourselves and generate new opportunities as transhumans. The concept of boundary objects[67] can help us to understand the additional value and the co-creation process of inner-outer-inner-outer growing relation, when we actively live with robots. A boundary object is an object that has the capacity to translate between and connect different actors, separated social worlds, cultures, etc. In the course of interacting and co-vivaling (Co-Vival as process) with robots, artificial systems represent boundary objects between the robots and us humans.

67 The concept of boundary objects was first introduced by Susan Leigh Star and James R. Griesemer in 1989.

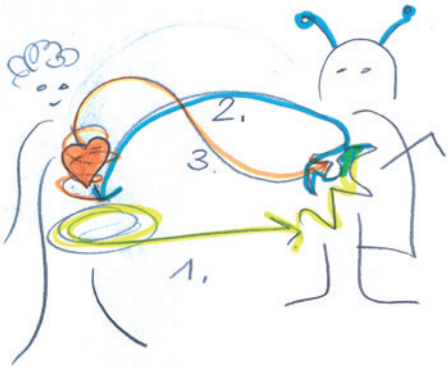
McCarthy (2004, 8), in his notes on self-awareness, referred to the boundary as an element to be discussed in the context of interfacing artificial systems and humans: "With humans the boundary between self and non-self is pretty clear. It's the skin. With computer-based systems, the boundary may be somewhat arbitrary, and this makes distinguishing self-awareness from other awareness arbitrary. I suppose satisfactory distinctions will become clearer with experience." Coming back to our robot as prosthetic arm: it is connected to humans in different ways beyond the skin, such as the nervous system and the brain. And it is the experiential learning curve that creates the boundary object. When humans teach a robot how to move, how to touch, and how to respond to opportunities that come with a robot as body part, and vice versa, information and behaviour (e.g. enduring heat through the robot arm) are generated, making up experiential knowledge. These constitute boundary objects. Co-living with a robot means generating experiential knowledge that is preserved in boundary objects. As the living memory of Co-Vival, they represent the core of how humans design the co-living system, with interactions as a driving part of the ongoing dynamics of this system.

Boundary objects refer to recognised interfaces between social universes, showing how different actors can cooperate on a certain issue, or in specific situations, even when they are of different nature or pursue different interests. Boundary objects encode functions that need to be mutually understood either to co-exist or to allow exchange of (pragmatic) information. Involved parties might have to rely on services in case boundary objects are respective gatekeepers, e.g. how heat is perceived by the co-living system. In this way, boundary objects belong to the involved parties or concerned universe of discourse. To be of effective use, they require negotiation and adjustment for consensus finding throughout development.

Artificial intelligence products fulfil the criteria of boundary objects, because as design objects (Co-Vival products), they 'are entities that enhance

the capacity of an idea, theory or practice to translate across culturally defined boundaries, for example, between communities of knowledge or practice. This concept thus has potential to both explain and predict technology adoption'.[68]

Artefacts as boundary objects have identical boundaries for different communities, e.g. robots in healthcare or industry production, while the content that is bound differs, e.g. a technical documentation that contains user-related and technological features of a social robot. It is the universal intelligence surrounding us; we need to generate social meaning through awareness. Recognising the significance of an object's meaning 'is an acknowledgement of the social and power relations that a technology or a technological object mediates. The success or failure of an innovation depends on the reception of this meaning and these social relations.'[69] From a human perspective this mediation occurs between an inner (human) space with the surrounding intelligence and systems. In case of awareness inner space presupposes the outer space.



Graphic 14 Sharing the self through and with boundary objects

68 Fox 2011, 70.

69 Fox 2011, 82.

Sharing the self through and with boundary objects as a manifestation of inner-outer spaces starts in the first moment of interaction with artificial systems, e.g. how a prosthetic arm is perceived, and finally being operated. The boundary objects can either contain elements that substitute a human arm, aiming to use the artificial arm as close to the functions being possible with a biological arm. It can also be applied as an enrichment when handling hot or dangerous objects that was not possible before. In the latter case, the inner space contains a driver to explore the world in a new way and opens up for new kinds of experiences without having to care about some environmental or biological constraints. The boundary object captures behaviour that was not possible before for the living system.

The unknown that comes along with artificial intelligence through the vehicle, the process and the outcome Co-Vival finally manifests as a boundary object. It is created through the core of humanity: self-awareness and connection as individuals and collectives. It starts with one's sharing of himself or herself (see 1. in graphic 14). Some parts initialise the relation space to artefacts like robots (see upper part of graphics). They allow connections (see 2.) that trigger further sharing of the self through relating to the robot (see 3.). This in turn triggers further or novel ways to start sharing the human self, this time with the impetus from relating to the artificially intelligent system. In this way Co-Vival evolves as shared endeavour; each of us can decide which role she/he plays, and finally, how to grow in connection with an intelligent artefact.

The lower part of the graphic shows the resulting boundary object that is created and represents an externalised mental model of the artificially intelligent systems. It will be an artefact that not only influences the relation space, i.e. how we connect, but rather requires both parties to exist. Consider a prosthesis allowing movements with parts human alone cannot make. The boundary object contains all structures and processes evolving through each cycle of connections.

By working with boundary objects and their representation ('meeting Co-Vival') human conditions of behaving can be made aware and thus build a fundament for co-creation and self-empowered space development. The key is sharing the self as a boundary object, as it provides the baseline when dealing with the created inner-outer duality.

Co-Vival manifests as the vehicle to deal with developments towards transhumanism. It is an active act of behaviour to work with boundary objects (Co-Vival as process) which becomes manifest in certain ways of communication and interaction. Finally, boundary objects are a result of working with inner-outer representations (Co-Vival as outcome), enabling metacognitive and reflective transhumans in an inclusive development spiral.

Summary: Capacity Building with and for Co-Vival

Co-Vival is our utopia that carries new qualities for dealing with uncertainty. Co-Vival stands for the unknown in three dimensions: the robot-being as vehicle that helps us; the process of co-creating and co-leading; the new (trans)human species we are becoming.

Artificial intelligence will penetrate our lives as humans and transform us irreversibly. This transformation will not stop at our bodies, minds, relationships or our entire life cycle, and it will not stop at our death. It will change everything that surrounds us, from business models, our environment, our population, our climate and our connection to our human souls. Transhumans and human-social-like-beings will be normality for social-technical togetherness.

We cannot predict the future. We have to co-create it. And this article shows that there are many open questions. The focus of the main decision and

crossroad is: do we go through this process with awareness and as conscious creators, or not?

We developed a blueprint with awareness outlines. They can give us orientation on how we can prepare and enhance our human capacity for co-creating a world with robots:

- **Educate yourself:** Inform ourselves throughout the journey about what artificial intelligence is capable of and how we decide to involve ourselves with the next quality-challenge of enhancement in humanity. Gain insight into essential interrelations and their contexts. To be able to detect conditions for coherences is important in order to find leverages for change.
- **Detect crossroads:** They are indicators for the decision to make between humanising or dehumanising ourselves and the human system. They show themselves in daily life and on a large scale. Mostly they are just hunches; we see fogginess. When we pause and look closely into this cloud the information about the crossroad has a chance to emerge.
- **Choose human dignity:** Freedom of choice and responsibility are the essence of our human nature. We are able to become aware of our thoughts, our emotions and our societal situation and we are able to consider consequences of our actions in the light of the context (system, world). This awareness-enhancing discourse and learning from experience is what we urgently need.
- **Focus on utopia:** This is necessary for the human system to increase humanity together in an active way. If we listened to the dystopians, the use of the vehicle, the process and the outcome would be a disaster[70], a co-dying in war, not a Co-Vival for humanity and the human system in peace. The awareness of a positive opportunity, our utopia empowers

70 Cf. in the article the fear and love leverages in Spindler/Famira 2019.

us to take control of our conscious development from a collective and individual perspective when designing the human future.

- **Focus on quality:** How much we as a human system are enhancing our capacity depends on whether we dare to embrace our inner space, the qualitative, vertical growth. It is the approach to generate future from the inside out. It is the seed that generates humanity with others and our systems.
- **Be free and active:** Freedom is more than talking about freedom, it requires conscious choices that lead to concrete realisations, projects and co-creations for utopia with others. When we identify crossroads in our private live, in our organisation and in our society, we find our call for decision-making. Thereby, we become an active part.
- **Open spaces:** These spaces are created inside you, for collaboration and for the development of systems. Thus, downloading of the same old unconscious patterns will take a back seat and awareness of your actions has the chance to come to the foreground[71].
- **Go beyond:** Looking beyond the five-sensory, two-dimensional world requires taking care of 'more' by looking inside ourselves, the sensations and relations inside ourselves as well as the relationship with other humans and human-like robots, our organisations, the world, and the universe.
- **Connect consciously:** Connect to yourself, your inner world, your soul, the bigger realms and to other humans in utopia to co-create this world with. Thus, you enable yourself to embrace the unknown and the differences we do not know yet. This three-dimensional connectedness provides us with trust and security when we engage with the unknown. It opens spaces for you, as part of the human system, actively to embrace, artificial intelligence as well.

71 See further: Spindler/Stary 2017.

- **Trust your intuition:** If we focus consciously on our body it presents us a vessel of wisdom. It provides us with information and authentic power. This requires experiencing the sensations in our body to let the intuition and future emerge. Our own inner intentions and motivations are a key to our connectedness and readiness for active participation.
- **Embody integration:** Our personality, with its mind, emotions, body sensations and technology, needs to embrace the differences and the whole, the human system with its eternal soul. In the body all dimensions are materialised. The body represents the container allowing us to access the soul, emotions and thoughts, including other humans, with empathy, solidarity, including our surrounding systems (teams, organisations, communities).
- **Enhance experiencing:** We don't think ourselves into a new way of living; we live ourselves into a new way of thinking, within ourselves and in connection with others. We create our future world in a flow of actions and learning from those actions together in the here and now. We materialise opportunities with each thought, each world, each action. We are connected and the world is jointly created. Experiencing within us what we are doing and what others are doing is the mastery of joint awareness.
- **Increase your intelligences:** Multidimensional awareness is interlinked with our capability of using multiple intelligences: body, mind, emotions and social intelligence. Practise daily to become aware of your sensations in your body and find access to your different intelligences. Experience what is happening to you, what imprints the motions and flows you generate with your connections, actions, words, and events leave in you, and how you can process them through yourself and with others.
- **Connect to your soul:** In order to connect to multidimensional intelligences, we have to connect our inner senses and our soul. The awareness of one's own body is the space and container for integrating different intelligences, as mind, body, soul and technology meet in the body.

To our soul, as individuals and collectives, it is the foundation to open the space that invites and allows us to connect to the greater systems, greater sources, our spirit of life and our solidarity on earth.

- **Become aware of the bigger whole:** Take a systems perspective. We need to raise our awareness of the bigger picture, the systems of systems, the source. Who and what influences us and the world? Who leads, organises, promotes, and controls our organisations and systems? Who is part of the development of robot-beings and transhumans, Dystopians, and who is aware of controlling Co-Vival living, on which level of consciousness? It requires meta-awareness that can influence all other qualities of consciousness. Then we can decide: What is my intention, my utopia, where and with whom would I like to be an active part? What crossroads do I want to take, where can I influence?

All in all, we do not know how far-reaching robots, artificial intelligence, biotechnology, and Co-Vival will be. The answer lies in increasing our awareness of each individual, our relations, and systems as the condition for identifying utopian sense-making. Increasing humanity means triggering and being grateful for awareness processes, i.e. creating space for consciousness.

We recognise the differences in awareness and intentions and different capacities as unity, e.g. including AI as an essential leadership requirement. We need to facilitate generating space for system(ic) development, fostering extensions beyond the physical, binary logic-minded and finally, two-dimensional world.

We intend to prepare, co-create and meet the unknown Co-Vival in 2045 on an equal level. Being aware of and using different intelligences, so that the world can remain human and become a more human place, is our challenge.

Artificial intelligence is our self-created challenge and chance. Let us not just survive in fear, but together thrive in multiple intelligences, as human system, and the bigger and bigger utopian whole which is to be consciously created step by step.

Literature

Arendt, H. (1969) On Violence. Harcourt, Brace and World, New York.

Arendt, H. (1958) The Human Condition. Chicago: University of Chicago Press.

Bloch, E. (1999) Naturrecht und menschliche Würde. Suhrkamp, Frankfurt am Main.

Bostrom, N. (2005) In defense of posthuman dignity. Bioethics 19.3 202-214.

Bostrom, N. (2009) The future of humanity. In New Waves in Philosophy of Technology; Olsen, J.-K.B., Selinger, E., Riis, S., Eds.; Palgrave McMillan: New York, NY, USA, p. 186–216.

Bostrom, N. (2014) Superintelligence: Paths, Dangers, Strategies; Oxford University Press: Oxford, UK.

Bounfour, A. (2015) Digital Futures, Digital Transformation: From Lean Production to Acceluction. Springer International Publishing Switzerland.

De Beauvoir, S. (1948) The Ethics of Ambiguity. Translated from the French by Bernard Frechtman. Citadel Press, New York.

Decart, R. (the first edition: Des-Cartes, Renati 1641) Meditationes de prima philosophia in qua Dei existentia et animae immortalitas demonstratur, Parisiis, Apud Michaelem Soli, via Jacobaea sub signo Phoenicis. MDCXLI. Cum Priuilegio et Approbatione Doctorum; the Version Artur Buchenau, Lipsiae 1913 is available E-book version 2007 [EBook #23306] with the Original version in Latin: http://www.gutenberg.org/files/23306/23306-h/23306-h.htm, accessed 30. April 2018

Fox, N. J. (2011) Boundary objects, social meanings and the success of new technologies. Sociology, 45(1), 70-85.

Gilligan, C. (1982) In a different voice: psychological theory and women's development. Cambridge, MA, Harvard University Press.

Gilligan, S. (2012) Generative Trance: The Experience of Creative Flow. Crown House Publishing, Bamdyfelin, Carmathen, Wales.

Gilligan, S./Schüller, A. (2017) Integrating Somatic Intelligence in High Performance Teams. Challenging Organisations and Society. Reflective Hybrids, Vol 6(1) S. 1087-1102.

Kass, L. (2003) Ageless Bodies, Happy Souls: Biotechnology and the Pursuit of Perfection. The Atlantic.

Knickrehm, M. (2018) How Will AI Change Work? Here Are 5 Schools of Thought. Harvard Business School, January 2018. 148-151.

Kurzweil, R. (2006) The Singularity Is Near: When Humans Transcend Biology. New York: Viking.

Laloux, F. (2014) Reinventing Organizations. Nelson Parker, Brüssel.

Laslo, E. (2017) The Challenge Before Us: Mastering the Bifurcation of the Humanity-System Challenging Organisations and Society. Reflective Hybrids. Vol. 6 (1).

Lewin, K. (1939) Field theory and experiment in social psychology: Concepts and methods. American journal of sociology, 868-896.

Lewin, K. (1946) Action Research and Minority Problems. In: Journal of Social Issues, Vol. 2, No. 4, 34-46

Loevinger J. (1976) Ego development: Conceptions and theories. San Francisco: Jossey-Bass.

Linn, R. (2001) The heart has its reason and the reason has its heart: The insight of Kohlberg and Gilligan in moral development and counseling. Social Behavior and Personality, 29(6) 593-600.

Luhmann, N. (1996) Social Systems (Writing Science) Translation by John Bedenarz and Dirk Baecker. Stanford University Press.

Luhmann, N. (1996) Social Systems. Stanford (CA): Stanford University Press.

Luhmann, N. (2006) Organisation und Entscheidung (2. Auflage). VS Verlag, Wiesbaden.

McCarthy, J. (2004) Notes on Self-Awareness. University of Stanford, Research Report.

More, M. (1990) Transhumanism: towards a futurist philosophy. Extropy, 1990, 6, 6-12.

More, M./Vita-More, N. (Eds.) (2013) The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future; John Wiley: Hoboken, NJ, USA.

Rooke, D./Torbert, W. (2005) Seven Transformations of Leadership. Harvard Business Review.

Scharmer, O. (2008) Uncovering the Blind Spot of Leadership. Leader to Leader. 52-59.

Scharmer, O. (2009) Theory U. Leading from the Future at It Emerges. San Francisco: Berret-Koehler.

Scharmer, O./Kaufer K. (2013) Leading from the Emerging Future. From Ego to Eco System. Applying Theory U to Transforming Business, Society, and Self. Barrett Koehler, San Francisco.

Senge, P. M./Sterman, J. D. (1992) Systems thinking and organizational learning: Acting locally and thinking globally in the organization of the future. European Journal of Operational Research, 59(1), 137-150.

Spindler, M./Famira, G. (2019) Manifesting our Future with AI for a Safe, Just, and Human Society. Challenging Organisations and Society. Reflective Hybrids. Vol. 8 (1), in this issue.

Spindler, M./Steger, M. (2008) Metamanagement in gebildeten Unternehmen. Überlegungen zur Handlungsfähigkeit in der vernetzten Wirtschaft. VDM, Saarbrücken.

Spindler, M./Stary, Ch. (2017) SoS Anarchy. Active Inner Spacing for Co-creating Future Outer Space. Challenging Organisations and Society. Reflective Hybrids. Vol. 6 (1). p.1013 – 1065.

Star, S./ Griesemer, J. (1989) "Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39". Social Studies of Science. 19 (3): 387–420.

Stary, C. (2014) Non-disruptive knowledge and business processing in knowledge life cycles–aligning value network analysis to process management. Journal of Knowledge Management, 18(4), 651-686.

Vita-More, N. (2018) Transhumanism. What is it? ISBN 9780578405070, USA, Middletown.

Zukav. G. (2014) The Seat of the Soul (25th Anniversary Edition). With prefaces by Oprah Winfrey and Maya Angelou. Simon & Schuster Paperbacks, New York.

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- Bausteine erfolgreicher Teamentwicklung: Intention und Zielfindung in Komplexität und Ungewissheit – common ground und individuelle Freiheit balancieren – Fähigkeiten erkennen & nutzen – aneinander wachsen – Schwellen überwinden – Geschichte schreiben & immer wieder Neuland betreten ...
- Selbstsicher und berührbar im Kontakt die eigene Wirkung erfahren & entfalten
- Konstruktiver, achtsamer Umgang mit Unterschieden und Konflikt
- Geteilte Führung und Einfluss auf Augenhöhe; Vertrauen
- Flow generieren und halten: Engagement, Energiehaushalt und Begeisterung
- Freiraum schaffen wenn sich alles im Kreis dreht: Eigendynamik auflösen oder nutzen? Negative Teamtrancen erkennen und verändern – positive Verstärkung initiieren
- Das Eigene im Ganzen leben
- ...

Zielgruppe

GestalterInnen, Führungskräfte, Kreative aller Felder & Branchen; Menschen, mit Bezug und Interesse für Teams und Selbstorganisation, individuell und kollektiv. Alle, die ihr Repertoire jenseits von und in Ergänzung zu digitaler Fremdsteuerung, Hierarchie, (agiler) Programme ausweiten wollen und notwendigen Wandel, neue Arbeitsformen, Innovation in Organisationen und Gesellschaft – digital und analog – vorantreiben.

Motto: Mehr Maschine braucht mehr Mensch! ... die COS Conference 2019 und dieses COS Journal lassen grüßen! :-)

Termin & Ort
9. – 13. November 2020, Palazzo Contarini della Porta di Ferro, Venedig

Die Geografie von Stadt, Lagune und der Palazzo aus dem 14. Jahrhundert bieten die ideale Lernumgebung: endloser Formenreichtum zwischen fest und flüssig, Verbindung von Tradition und Zukunft und Balance von Verfall, einfachem Leben und Superlativ.

Methodik:
Gruppendynamische Trainingsgruppe; generative Teamdynamik; Reflexions- und Resonanzprozesse; multisensorisches Erfahrungslernen durch Verbindung von Denken, Intuition, Emotion und Körperintelligenz; outdoor & indoor; kreative Medien; 3 D- Modellierung

Arbeitssprache: deutsch (english on request)

Investition:
Early Bird: 1.500,00 + 20% Ust
Regulärer Preis: 1.600,00 + 20% Ust
(Spezialkonditionen für Teams auf Anfrage)

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