

COCREATION AND TRANSFORMATION: THE POWER OF BRINGING THE NEW INTO THE WORLD - TOGETHER

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INTRODUCTION

At the Institute for Participatory Design we are interested in cocreating a positive sustainable and just future with groups who face certain problems or challenges or who want to develop new places, products, services and concepts for their work or life environments. During our participatory design processes, groups don't just collectively innovate by merely gathering new creative ideas. In the course of these processes they often see themselves facing their past and present states in regards to their social, emotional, psychic, historical or spiritual internal system. Only by overcoming and thus transforming these past and present states they gain inner freedom to explore and cocreate new possible futures.

While the original and primary goal of our institutes work is not to heal trauma or to mediate conflict, but to design for a given tangible output, both can and does happen if groups work on their collective future by using a certain methodologies we derive from the fields of design and planning. As a matter of fact, we found that our approach to cocreative design processes can be so powerful in this respect that we increasingly suggest it, if groups need help with a collective trauma or conflict. Working on a possible future can often be a cathartic and liberating group experience. Looking at the future holds possibilities and hope, which by looking at the past only will not be triggered.

ILLUSTRATION:

Therapy (focused on past events, e.g. trauma)

Mediation (focused on present, e.g. agreement)

Design (focused on future, e.g. vision)

In this paper I will try to understand what a good cocreative design process looks like, how it brings the New into the world and how it can help to support both behavioural changes and changes to our concrete environments. I will discuss emergence, creativity and design and present two cases of our practical work. At the end I will draw some insights and conclusions about cocreative design processes.

SOCIAL CHANGE AND TECHNOLOGICAL INNOVATION

Let me start with some normative claims about change in general and the necessary change we have to face collectively.

I think or hope that we all can agree on the notion, that we live in times where fundamental changes have to happen and where we need solutions for the severe challenges facing us all over the world, be it war, hunger, migration or environmental threats. These problems and challenges have something in common: they are complex and complicated, they are systemic and dynamic. They can't be solved by a single mind or by a small exclusive group of experts alone.

Secondly, I hope we can agree on the notion, that technological and social innovations alone will not lead to the solution of these problems, as long as behavioural change in individuals and groups will not go alongside with them. Neither will behavioural change alone bring us salvation. If the systems in which we try to act anew, will not change alongside with our realisation and conclusions of what actions would be best to take, there will be no success.

Take the simple fact that flying with an airplane is one of the major threats to our climate. Regardless that we all realise this fact, regardless that our consciousness tells us that air traffic as it is today has to fundamentally change, and regardless that we know that we have to take different actions collectively: still many, probably most of us, have boarded a plane to attend to this conference. At the moment there seems to be no viable alternative to traveling by plane, except not to travel at all and therefore excluding us from parts of our social, professional and recreational life, like this conference.

What we know would be right to do on the one hand side and the system we live in on the other side contradict each other and we see little scope to change our actions on an individual basis as long as the system suggest a simple but wrong solution.

Confronted with these kinds of problems we usually try to change our individual and / or collective behaviour, e.g. by changing social norms or policies about travel, or we work on finding technological solutions. However, there is little joint effort to change individual and collective behaviour alongside with appropriate social and technological innovation in an overall approach to bring breakthrough change to these complex and systemic problems.

Taking these claims together I draw a simple conclusion: social and technological transformation has to go hand in hand with personal and group transformation in behaviour. Let me first discuss what I mean when I talk about bringing the New into the world:

EMERGENCE: THE NEW COMES INTO THE WORLD

Emergence is a scientific concept which originally describes the phenomenon that higher level systems or assemblies of parts have properties which their original parts do not have.

Emergence comes from greek and can be translated as to turn up, to rise up or to appear. It generally describes that new, formerly not existing phenomena can appear as a result of new combinations or processes compared to the original state. Historically emergence was focused on the idea of levels of hierarchy in the order of things and their respective properties, where the higher level of organisation was said to have emergent properties compared to lower levels of organisation. A society has properties which its individuals do not have, e.g. institutions. Keith Sawyer states: „A property of a system is said to emerge from the system’s parts in interaction when (a) the system property is not held by any of the parts (a commonly used example is water; water is a liquid, but hydrogen and oxygen are not); (b) the system property could not be predicted even if one held a full and complete knowledge of the parts.“ (2009, p. 83)

From the viewpoint of design, innovation and development we use the term emergence today in a slightly different way. Emergent design is used in polarity with the term incremental design. A design can either be incremental, meaning that it builds upon already existing solutions, but enhancing and improving them. Emergent design on the other hand creates a completely new solution to a given problem. It shifts perception and attitudes and opens up possibilities to reevaluate problems and their context. While incremental design improves the status quo, emergent design tries to transform the status quo in order to bring something new into the world.

For example: Nokia did improve its phones incrementally, by advancing the existing technology. Apple on the contrary did something new. By disposing the little keys on the first iPhone and instead using a big touchscreen, Apple made it possible that the user-interface could change according to the needs of the application. This led not only to a better user experience, but made a whole new line of hardware and software development possible. When Henry Ford stated that he does not give faster horses to its customers but a car, he referred to the emergent quality of his product. The car was a completely new means of transportation, not an enhancement of horse driven mobility. Since his times however the car was subject to incremental design only and the industry is struggling to find the next emergent step in the field of mobility. But even the self-driven, electric car will be a car and thus incremental design.

If we work with groups to design their future, be it in planning places and spaces to live and work, or products and services, it is the emergent quality we strive for. Because only by attaining emergent solutions we can be sure that deep and necessary transformation took place: the change of our viewpoints, our attitudes and our actions.

What is the role of creativity and design in this?

CREATIVITY AND DESIGN IN GROUPS

Since our interest lies in the design of viable futures respectively the systems, places, products and services of a future sustainable and just world, I would like to focus on the creative design processes of professional planners and designers, rather than the creativity of artist. (Even though, I believe that the processes are very similar, and only the intention and ends will vary.) Because this is where our institute draws its methodology from.

Creativity was long studied as a phenomenon connected with individuals only. The interest lay either in the moment of insight, the „heureka“ - moment and/or in the character of the

genius, artist, inventor or entrepreneur, who, as a lonely wolf, is subject or has access to these insights. Also the more recent neurobiological studies try to understand what happens in a single, individual brain, when creativity happens.

But since the 1980s researcher started also looking at groups. Keith Sawyer calls this the second wave of creativity research and writes: „Several prominent creativity researchers, influenced by the onset of sociocultural and distributed approaches to cognition in the 1980s, have begun to analyze the role of collaboration and context in creativity. This second wave of creativity research focuses on how novelty emerges from unstructured and improvised group collaborations. This collaborative turn in creativity research has provided us with a deeper understanding of how new things are created—not only by solitary individuals, but also by collaborative teams and social networks.“ (2009, p. 91) In his book *Group Genius* he even claims: „Forget the myth about historical inventors; the truth is always a story of group genius. And today's innovations emerge from ever more complex organizations and interacting teams.“ (2007, p. xiii) But he also notes: „However, even though we now realize the importance of group collaboration, we still have very little understanding of the exact mechanisms whereby creative products emerge from groups. (2009, p. 82)

We think there are two answers to it. One is about methods, the second is about attitudes and context and the third is about fields and processes:

Many design and planning professions have an understanding of what creativity is about: a procedure of steps and methods usually following a scheme consisting of something like observation and analysis, idea generation, doing the actual design or plan, making a technical plan and implementing this plan. Each step has its own set of creativity methods and professional tools like layering, clustering, brainstorming, prototyping, modelling, sketching, lateral thinking, interviewing, story telling, mood-boarding etc. Some creativity and design approaches like Design Thinking; human Centered Design or Agile Methods in Programming have their own clearly defined set of these creativity techniques and the procedure in which to use them. Since we think these tools are important and effective we believe they are not the whole secret to creativity. They don't explain the moment of the design itself and they are not sufficient to guarantee a valuable and emergent solution.

The second answer is about attitudes and context: creative professional spaces help fostering creativity. A well known example are google offices - they resemble more a playground with all the resources you need to be creative than a grey cubicle office, most companies still work in. In terms of attitudes it helps to cultivate a creative culture where failure is a step towards development, ideas are open to be used by everyone, hierarchies are flat and communication is transparent. All these are supportive to the creative process but again not sufficient for a creative breakthrough.

The third answer is focused on explaining creativity and emergent design solutions through working in the field of the project with a generative process. We coined the term Field-Process-Design for this approach. To explain this, I will first present two cases from our practical work.

CASES

CASE 1: DESIGNING FOR A NEW INTEGRAL HOSPITAL

The first example I want to bring to your attention is our work with a small group of around 40 participants at an integral hospital in Germany. They prepared for a major building refit alongside with new extension buildings to the hospital campus. The hospital had to meet rising standards and modern requirements as well as it had to expand its numbers of beds in order to stay economically competitive.

Since this hospital has a reputation of its special integral approach to health and of its strong community, the management wanted to conduct a participatory planning workshop, consisting of employees, management staff, doctors and supporters. The aim of the workshop was to develop guidelines as a basis for a following architectural competition.

We only had one whole day workshop, which is not enough for this kind of endeavour. Still we managed in this workshop to develop sound and tangible guidelines for the competition. Without explaining the whole process I would like to single out a small but important incident during the workshop.

At one point, after thoroughly understanding and discussing the context and the frame conditions of the projects, as well as having a few creative warm up exercises, we split the group in small working groups with a maximum of 8 participants. The task was to come up with a vision of the future hospital either drawn with colours or modelled with modelling clay or by building paper models. While all groups directly plunged into a creative process giving form to all the utopian and real visions and ideas they had about the future hospital, I noticed that one group really struggled and got into an argument with each other. After observing this for some time, our team decided to intervene. Over half the time for this session was up and the group hadn't produced a single sketch, drawing or model. I sat myself to the group and listened to their arguing. I understood that half of the groups members were surgeons asking for modern high technology as well as for clean, light and functional rooms with easy access. The other group were psychotherapists. They called for bubbly, round cosy spaces, almost like hobbit holes or wombs, preferably with doors directly opening into wild nature. While the second group tried to convince the first group that healing needs an holistic approach and spaces where the soul can heal, the first group argued, that without a modern emergency room, there wouldn't be any soul left to heal.

On top of their argument the group was frustrated, tense and angry with the task at hand. I made the suggestion that maybe this group was really on to something important to the whole project, and probably closer than the all other groups to the real challenge of the future building. First they didn't understand my comment and thought I were making fun of them. So I explained that the hospital was renowned for its integral approach offering both surgery and psychotherapy among many other approaches to health and healing and that surely the new building should even more represent this than the existing one. Then I left the group back to its task.

When the presentations came up, all groups had wonderful and important contributions to show, with many ideas we could build upon. The group where I had to intervene showed only one thing: a modelled cube and a sphere morphing into each other. From this presentation they concluded one of the most important guidelines for the architectural competition. The future hospital should offer many different room qualities differentiated by function and atmosphere, from rectangular to round, from white and light to colourful and warmly dimmed, from spaces with high technology to space close to organic form and nature. And, they made clear: it was important for them, that these different qualities weren't

just options to choose from, but rather they should offer the possibility to move through them, morphing with them while being on a personal healing process.

A very difficult requirement for the architects but none the less a consequent design guideline for this hospital. I also believe, even if this was not written down as a result or discussed any further, that the work of this group changed something in the perception of the small working group and of the whole workshop group. The small presentation triggered a renewed and maybe even deeper understanding of their own integral approach and what it would mean for this hospital to collaborate in a multi-methodological approach to help their clients on their personal health process.

CASE 2: DEVELOPING THE EDUCATIONAL LANDSCAPE OF FRANKFURT AM MAIN

The city of Frankfurt has a major problem with demographic change. While the countryside and small towns in Germany loose population, Frankfurt and a few other big cities grow exponentially. Frankfurt grows to an extend, that the administration will have to build each year a whole new elementary school with 4 classes to be able to school all pupils. The usual planning process for an elementary school in Frankfurt takes approximately 10 years. As if this weren't difficult enough, everything concerning schools and education is a highly conflicting political field. We were reported that there was little constructive communication between major stakeholders, like proponents from politics, city administration, federal state administration, teachers associations, parents associations, the trade union of education and several interest group organisations like those for inclusive schooling after the UN Convention on the Rights of Persons with Disabilities. The head of the department for education of the city of Frankfurt was under high media pressure. Mistrust was great, pressure to act was high.

The head of department for education thus made a very bold move when she declared that she would invite all stakeholders into a participatory process of over one year to work out the new school development plan of Frankfurt. The school development plan is the political and administrative basis for all major measures concerning school development over a period of 7 years, covering e.g. school buildings, type of school (Schulform), educational resources, organisation of space, cooperations with sport, music or other educational institutions, length of school education for gaining the university-entering diploma, youth welfare service and inclusive schooling programs.

We were invited to conceptualise and facilitate the design process to work out the school development plan with over 450 people from all stakeholder groups mentioned above.

From our own preparation we found that it would be important to introduce whole transparency and that we would have to address the trust issue. We achieved transparency via an online platform where everyone could view every minutes and every flip-chart, sketch or result produced during the process. This way the whole city was invited to inform themselves about the ongoing process and to discuss it privately, public and in the media.

We addressed the trust issue methodologically by sitting people from different backgrounds together on one table right from the first event. We called this multi-perspective tables. A table consisted of a maximum of 8 persons and consisted of people from politics and administration, teachers, pupils, parents, interested citizens and representatives from other associations. First we were faced with complaints about the undemocratic rule we

established to force people to sit on certain tables. But already after the first event, people were touched and almost enthusiastic about these tables. They experienced that actually everyone attending the process was in some kind or another interested about serving pupils to get the best possible education. They were also intrigued to hear about the struggles everyone had to fight in their own professional background to make bring this intention to live. Of course: mistrust does not vanish that easily, but a first step was made.

But something else happened at the first event: on a side line someone mentioned the idea of building educational villages. Even though this wasn't a thought through concept, the term somehow stuck as a small inspirational spark with everyone.

During the course of the process we got into detail and worked in many workshops on parts of the overall problem. We hoped through splitting the over complex challenges of the school development plan into thematic subgroups to somehow get some detailed insights and ideas. Again and again people muttered phrase like: „if only we could bring everything together“ or „wouldn't it be nice to get an overall approach to all of this“. The idea of educational villages, regions or city districts was brought up again and again but couldn't be filled with concrete suggestions. We tried to get the overall picture but were still occupied by understanding all the different pieces and by suggesting solutions for the single problems, e.g. of how to integrate pupils with disabilities into the general school system while finding new use for the formerly school for pupils with disabilities. Or we tried to solve the question why parents would still send their children to the gymnasium while other school forms would suit better for the needs. Though everyone started trying to connect these dots and to get a picture of how all of this could fit together, we were still busy on finding solutions for single problems and agreeing in our heterogenic group on the right approaches. We had a whole week of thematic workshops where the community of the participants grew stronger and stronger, they talked freely to each other and started understanding from which perspective arguments came. There still was open conflict but the everyone tried to compromise and to take other standpoints into account.

But at the end of these thematic workshops, which were all in line from Tuesday till Friday the confusion peaked. We had so many ideas and solutions for almost every detailed problem, but a common line was difficult to see and the complexity of the task at hand overwhelmed all of us. Even more at this point where the whole group was generally empathetic to each other, but knew the whole picture of all problems and all positions towards solving these problems. On the next day, the following Saturday we had scheduled the big workshop where all results from the thematic workshops should be brought into one big picture. Our client was confused too and asked us to provide a framework for a controlled outcome, but we had only planned for an open process. We had done everything we could to foster understanding of all positions and the whole scope with all the challenges of the school development plan, and we had a good plan for an open creative process for the following day. But there was no way we could control or guide the outcome in any way anymore. Our team tried to match our clients needs and worked all night on the methodological setup for next days workshop but we couldn't find a solution to provide for all needs and anxieties together and guarantee for a perfect result for the next evening. We got counselling from our Co-CEO on the phone from her holidays, didn't go to sleep until 4 o'clock at night, with the workshop starting early next day, not knowing at all if everything would line up in the end.

What we decided was, to just go on with our open process as planned and trust in the groups creativity and intelligence and the intense professional immersion in the field we all had worked on so far. We also decided to give the flickering idea of the educational village a try.

The next day after we heard the report from all thematic workshops, we just plunged into cold water. The task was to again sit in multi-perspective tables - this time we didn't need to force anyone, everyone knew the value of it and to bring all they had worked on together under the often stated idea of educational villages or city quarters. Even though our team and our client warn me to use it I also offered anyone interested modelling clay to make three dimensional models of their vision on an educational city quarter. I hadn't even spoken to the end, when the groups grabbed the big sheets of paper, colours and the modelling clay and started cocreating. There was an amazing energy and buzz in the room when almost 250 people started on the task. While during all the workshops they had been focussed on solving problems, working hard and concentrated, now they first had a real opportunity to unleash their collective creativity. I have rarely experienced such a high creative power in a room. And something else happened almost magically. When we started walking around we noticed that on a broad scale every all groups worked on very similar solutions to the extend that one of our team members started to make foto overlays of the papers, showing the resemblance in visualisation and content.

The educational city quarter became the main organizing principle for the new school development plan. On the regional level of a city quarter with the multiprofessional perspective we all had trained ourselves to during the process, many problems like allocating and sharing spacial and material resources, organising schedules for afternoon schooling together with sport and music associations, libraries or youth welfare became manageable and added to a diversified and integrative, local educational program, easing communication and organisation on a direct basis and decreasing administrative overhead. Also the educational city quarters would contribute to identification with a local system rather than with single schools, making changing schools and programs easier since the pupils would still be part of their local educational system.

The plan is not the territory. The new school development plan has to this day passed political and administrative consultation and is approved as the concept for developing the educational landscape of Frankfurt for the next 6 to 7 years. When implementation will be successful, Frankfurt will become the most innovative and future oriented city in respect to education.

FIELD-PROCESS-DESIGN

I am still trying to sketch the third answer of the mechanisms whereby creative products emerge from groups and said so far that it has to do with the field and the process of the design. For that, let me single out three insights from these cases I presented.

First: in order to get into a transformative process with a group, it is important to dive deep into the field of the respective context and establish connections between all forces of this field.

Otto Scharmer explains this in his Theory U when he writes about Kurt Lewin: „Lewin viewed the social environment as a dynamic field that interacts with human consciousness. (...) In his field theory, a field is defined as „the totality of coexisting facts, which are conceived of as

mutually interdependent." He believed that, in order to understand people's behaviour, one had to look at the whole psychological field, or „life-space," within which people acted. Life-space or fields are constructed under the influence of various force vectors". (p. 232)

At our institute we feel it is important, to take the non-human and non-social forces of the field or life-space equally into account. Working with place, material, form and (hi)stories, we experience that participants of a group have to immerse (as in contrast to emerge) into an existing field. They have to become part of the field in order to establish what we call field-intuition, an intuition based on sensing the field of which the participant become a part. Is this immersive connection established, personal transformation becomes a transformation of the field and vice versa.

This happened with the arguing group at the hospital as well as with the whole group on the school development plan. They mirrored in their personal behaviour strong forces and themes in the field of the project. The hospital group acted upon an unresolved issue concerning integrative health at the hospital. The participants of the school development process started finding solutions when they practically applied their own positive and new experience of forming small local multi professional units to the complexity of school development.

Secondly: the moment the individual, the group and the field become a single collective processing body everyone is empowered to speak and act for himself, the group and the field alike. Now the group is ready to confront the challenges, flaws and conflicts of the field from within, rather than fixing a problem of an external object. We usually feel that the pressure of unresolved issues is rising during the process towards a point of crises or transformation. This can happen to the whole group, to parts of the group or to the facilitating team as it happened in both cases I presented.

Scharmer notes: „Threshold situations at the collective level display the same characteristics. They confront us with the experiences that require us to bend, redirect, and transform our collective field of attention. (...) Those thresholds or doorways usually begin to appear when our conventional ways of operating no longer work, when we hit a wall. We have to drop our tools and redirect and bend the beam of our attention to the field unfolding around and within us. It's a crack in our reality: suddenly that crack is right there, right in your face. (...) The capacity to see the crack - to stop and then to tune right in to it - is a key discipline of our time." (p.114f)

Thirdly: Cocreation in a deep sense means that creativity and creation is not the act of an individual or a group of individuals but happens out of the field under transformation. A field which moves through the threshold of crisis or transformation, reconfigures itself to the point that internal conditions and basic laws of the field itself are transformed. This enables emergence: the status quo changes and new ideas come into life rather than producing incremental solutions in the framework of the previous status quo. The self, the group and the field coevolve. This happened to the hospital group when the principle of integrative medicine became not only an intention but a principle for the organisational and build design of the hospital. It also happened when all detailed problems of the school development plan rearranged themselves according to the idea of multiprofessional city quarters.

CONCLUSIONS

At the end of this paper let me draw some conclusions:

True emergence in contrast to incremental design only comes from the cocreational processes we label as field-process-design, where whole field shifts through a threshold, a point of crises and transformation.

If our goal is personal and group behavioural transformation alongside with technological, environmental and social innovation as I stated in the introduction, we have to learn to bring therapeutic and design approaches together. This way we can both heal trauma and conflict of the past and design and build for a positive future.

While design has to learn to face psychic, emotional and spiritual dimensions of the realities it wants to transform and to create, therapy can learn a lot from creative design, planning and innovation approaches and methodologies in order to draw the healing path of individuals and groups into the future.

In his work „the world as design“ otl aicher, one of germanys outstanding representatives of modern design, best known for the Lufthansa logo, points out that “the work of the designer, is to bring order to a field of conflicting heterogenic factors“. „The world“, he claims, „ can be understood as design, as a product of a civilisation, as a world made and organised by man. (...) While in science truth is truth to the point where it is falsified, a design is always true, as long as someone takes responsibility for it.“

So lets not only take responsibility for our past but also for our future. As we learn how to heal our collective traumata, transform our current situations and cocreate our future, we might start taking different group centred approaches to face problems as complex as air traffic, climate change, poverty or migration.

Up until now I see these processes only in relatively clearly defined groups and organisations. I hope that in future we will see cocreation processes also on the top level of international policy and global economy. In order for this to happen, professionals like us will have to design processes, formats and methods to make this kind of work possible.

Thank you!

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ANKÜNDIGUNGSTEXT

Where does the new come from - in the world and in our behaviors towards the world? Is the new an iterative development of the already existing or is it radical change and transformation? Is there a source for emergence and how can we tap into that source as individuals and as groups?

At the Institute for Participatory Design we understand every design process as cocreation: the interplay of humans with the forces of the respective fields: physical forces of space and environment as well as psychic and emotional forces of history, experience, behaviors, understanding and belief. In the right methodological setting this process can generate its own dynamic of transformation and creative development towards new ideas, concepts, spaces and things. Understood in this way the new shows neither as the result of a deterministic equation or algorithm of the already existing nor as a contingent and arbitrary result by chance. It is rather the outcome of a generative and meaningful process, rooted in its context, shaped through vibrant transformative dynamics and open to emerging possibilities.