Systemic Design Oriented Leadership (SDOL) – a co-created play for eco-social leadership development with the methods of Systems Thinking

Pelin Celik[1]

[1]School of Culture and Design / System Design, University of Applied Sciences HTW Berlin, Germany
pelin.celik@htw–berlin.de

Abstract

The global economy is at a turning point, having reached its limit long ago after many decades of fossil fuel economy and growth thinking. Moreover, the world is becoming increasingly complex, accompanied by social, political, climate and technological challenges. The global COVID-19 pandemic has highlighted the interdependence and interconnectedness of different systems. Organizations that have to constantly adapt and reinvent themselves to changing situations require leaders who have learned to think in a connected way, to experiment, to endure uncertainty and, above all, to change their mental models.

In recent years, organizations invested considerable effort and resources to developing and enhancing the leadership skills of managers through various forms of Design Thinking tools and Design methods. Nevertheless the complexity for human and ecological problems asks for a further education of leadership actors, towards a new leadership mindset – beyond Design Thinking methods. Current leadership training programs aim to develop individual skills and growth of leadership without considering this in a systemic context and promoting the systemic perspective. Which factors of a Systemic Design Oriented Leadership (SDOL) play kit - developed in co-creation - enable tomorrow's leaders to see the whole picture and to make systemic decisions that are sustainable and social?

In order to train leaders in an eco-social thinking and behavior a Systemic Design Oriented Leadership (SDOL) play kit was developed. The method framework was set to Grounded Theory and Systemic Action Research, where playful, experimental interventions were designed, methodically recorded and evaluated together with the managers in regular co-creative workshops.

Through SDOL play kit, leaders are able to understand complexity and at the same time the play kit can serve as a compass, that influences the strategic competence of leaders to make eco-social decisions. SDOL as a play and co-creation trains the new skills for eco-social management in organizations. It allows leaders as players to experiment, speculate and react to behavior in play by the infinite game of synthesis, critique and redesign.

Author keywords

Leadership, Systemic Design, Systems Thinking, Play, Co-Creation

Introduction

In the context of digitalization, climate change and overlapping crisis, many companies are facing a huge complexity in the world. More than ever, companies and their leaders are challenged to think and act in a systemic way. In recent years, organizations invested considerable effort and resources to developing and enhancing the leadership skills of managers through various forms of Design Thinking tools and methods. Managers in middle and higher management positions have clearly realized the business values of design methods, especially Design Thinking (Jalote-Parmar et al., 2017) and User Experience, that have have been at the forefront of supporting digital transformation in companies (Magistretti et al., 2021). The leadership of tomorrow might has to experiment and needs new design strategies beyond Design Thinking. Authors such as Beehner (2019) argue that leadership has to enter into new relationships with nature, society and individuals in order to be able to make a sustainable, trust-based impact on solving problems. The new approach for leadership develops towards an ethical approach as Beerel (2020) formulated in her book "Ethical Leadership and Global Capitalism: A Guide to Good Practice". She argues that "(…) ethically sensitive managers need to engage in self-examination and developing their own self-awareness. They need to reflect on the kinds of people they are, their value system and the types of decisions they make. They need to be open to self-development and change and should seek out for opportunities for personal growth and challenge". Also Mugadza et al. (2019) explain how leadership has changed since the Pre-Industrial Age - from the born leader in industrial times towards innovative leadership with a Systemic Design perspective.

Some authors as Habicher et al. (2021) claim that Design Thinking only plays a marginal role in companies (SMEs), but can contribute to socio-ecological transformation in a systemic perspective. Current leadership training programs aim to develop individual skills and growth of leadership without considering this in a systemic context and promoting the systemic perspective. If organizations are looking for new leadership or eco-social leadership development, managers might first be trained in Systems Thinking, in analyzing relationships between stakeholders and finding patterns in behavior. How a ludic Systems Thinking in leadership development can change a mindset from growth to a more sensitive one into the direction of social and ecological decision making, has not been ex-

tensively researched. There are almost no tools in leadership development that focus on a change management by Systems Thinking play and game dynamics beyond design thinking methods.

The central objective of the ongoing research project is the question to which extent Systems Thinking as a ludic intervention embodied in a serious play kit can influence the professional development of managers to act in a socially sustainable way in order to transform corporate structures.

This paper shows the first results of the author's ongoing research project SDOL and the co-created ludic intervention.

Theoretical concept of play

Play seems to be a serious opportunity to make the reality of work more motivating and meaningful - not only for leaders. Because play seems to enable people to reflect themselves, to question behavioral patterns, to test and explore interactions in a group. Also play might enable people taking over risks and bearing uncertainty, which is often the case in design processes. Brown et. al for example claim, that play is a catalyst, like design methods, for being productive and creative (Brown et al., 2019).

There seem to be various definitions in literature of what play is and it might depend on its nature, purpose and manifestation. Three famous examples might be the definitions of authors such as Huizinga, Vygotsky and Rubin. According to Huizinga (1955), play is a free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly. In psychology Vygotsky (1978) for example characterized children's play as an activity that is "desired" by the child, "always involves an imaginary situation" and "always involves rules" (which are in the minds of the players and may or may not be laid down in advance). Rubin et al. (1983) characterized play as a behavior that is intrinsically motivated, focused on means rather than ends, distinct from exploratory behavior, nonliteral, free from externally imposed rules and actively engaged in by the players.

As Gray (2013) e.g. concluded that essentially all of the descriptions of human play can be boiled down to the five characteristics: Play is an activity that is self-chosen and self-directed, intrinsically motivated, guided by mental rules, imaginative and conducted in an active, alert, but relatively non-stressed frame of mind. Gray's conclusion seems to describe the qualities of creative thinking in design processes and seems to have similar arguments to Mainemelis et al. (2006), who proposed that play facilitates five creativity-relevant cognitive process-

es: problem framing, divergent thinking, mental transformations, practice with alternative solutions and evaluative ability.

The SDOL research project follows the definition of play according to Mainemelis, because of the comparable System Design teaching process that was developed by the author at the HTW Berlin: Synthesis, Critique and Redesign (fig.1 & table 1).

Table 1. Shows the comparable framework of the author and Mainemelis.

System Design teaching process	Mainemelis et al. play process
1. Synthesis – exploring the system	Problem framing and divergent thinking
2. Critique – identify the leverage points	Mental transformation
3. Redesign – create the system interven-tion	Practice with alternative solutions and evaluative ability.

Methodology

The methodology is inspired by Grounded Theory (Glaser, 1967) and Systemic Action Research (Burns, 2014) where playful, experimental interventions were designed, methodically recorded and evaluated together with the managers in the co-creative workshops. The process in the ongoing research project SDOL took place both horizontally in the leadership teams and vertically in the individual areas.

Organization of the workshops

Together with the participating leaders (finance and consumer goods industry) three consecutive workshops, based on the Systemic Design process mentioned before, were organized. Each workshop duration was up to four hours, twelve leaders from different departments participated. For the first workshop on *"Synthesis – Explore the System"* the leaders got information by forehand in form of articles on Systems Thinking, Systemic Design process and the goal of the workshops. Each of the three workshops started with a playful warm-up. The task in the first workshop was to define the personal definition of leadership. The guiding questions in the first workshop were:

What professional competences distinguish you as a leader? What is your eco-social perspective in your context (team, company, organization, etc.)? How would you describe your leadership style? What challenges do you face in your leadership position? After this, each group had to present and discuss their professional challenges and definition on leadership in their current status in the whole group.

The aim of the second workshop *"Critique – Identify the Leverage Points"* was to reflect on the re-enactment of leadership and the causality in order to identify leverage points for transformation. The task was to replay recruiting moments within an re-enactment. The challenge was to set up a role play, where three persons took over the part of the company's perspective and preparing questions on economic, social and ecological positions. At the end they had to discuss the behaviors and feelings in the re-enactment.

In the third and the last workshop *"Redesign - create the system intervention"* the leaders had to prototype with LEGO® Serious Play® the ideal leadership play. The first task was to answer reflective questions on the own purpose of leadership. The guiding model derived from the original IKIGAI
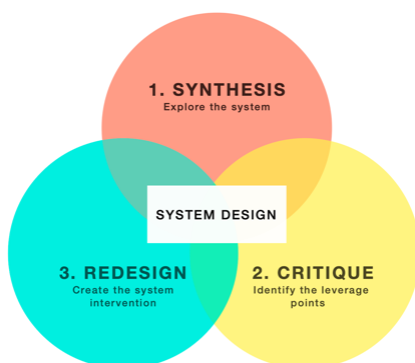
Figure 1. System Design process, Celik P. (2021)

model (Kamiya, 1966) that was presented to the participants before starting the challenge. The questions for the own reflection were adapted to the eco-social focus: What are you really good at? What do you love in nature? What does our society need? What do you need for your organization or team? Answering these questions and having had a deep inner personal reflection in the first two workshops, the participants had to redesign their mental model of leadership as a play.

After each of the three workshops the participants got a questionnaire via E-mail for evaluating the overall experience and describing transformational moments in their organizations.

Figure 2. SDOL Workshop, Celik P. (2022)

Results

The group discussions, observations, individual interviews and retrospective questionnaires produced the following results: 85% of the workshop participants had no former knowledge about Systemic Design and Systems Thinking processes and 41% would like to have even more information about the presented model "Synthesis, Critique and Redesign".

In addition to the transformations of the directly used tools, 82% of the leaders report that the playful exercises moved them to a changed self-perception and new behaviors. The exploration of the play inspired all leaders to use ludic interventions in daily business. Overall, 79% of the leaders report having better understood systemic leadership through the play workshops. Five leaders stated that playful moments made them think how to overcome the routines in their organizations and to be more sensitive for eco-social decisions in their teams. 92% of the participants were "very satisfied" with the task in the first workshop and the inner reflection. Three participant described the challenge in the first workshop "as a very emotional moment, becoming aware of mental role-models and their implications". One participant suggested to have a predefined selection of leadership motives, which they could have selected making a postcard story for leadership. 57% of the participants said that the role play in the second workshop was very challenging in terms of presenting in front of the group and 23% described "an overcoming moment of shame". Seven participants state that the role plays provide important projection areas for what they believe is inconsistent in application processes in large companies. Reflecting on the recruiting process in the company 87% have seen this as an enlightening moment to change something. For two workshop attendees play artefacts, f.e. rolling the dice on salaries, was an ethically critical moment that should be discussed further. Overall, 90% of the participants were inspired by the re-enactment challenge to further develop their own recruiting processes. In the third workshop 95% of the participants observed that the personal information shared between leaders in the "IKIGAI - challenge" was much closer to the "own heart" than it would be in a business context, where it is nearly always about "pretended roles" and rarely about self-reflective motivations. One partici-

pant commented that something like self-awareness does not usually happen in the business world, but that the playful workshops had managed to do this. Overall, 70% of the participants reported that the play workshops inspired them to change something about their leadership style. Across all workshops, 71% of the leaders reported that the activities gave them an inspiration for eco-social leadership development. 90% of the participating leaders would recommend a Systemic Design Oriented Leadership (SDOL) perspective through play and two leaders recommended more challenging play situations that could even take place in nature to reflect on eco-social decision making.

As a result of the three workshops, that is based on the feedback and the Systemic Design process of the author, a Systemic Design Oriented Leadership play kit was prototyped.
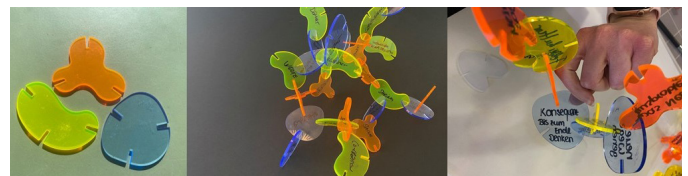

Figure 3. SDOL play kit, Celik, P. (2022)

The first idea of a SDOL play kit consists of three differently shaped elements of colored acrylic material. Each color or element refers to one of the systemic levels such as Synthesis, Critique and Redesign. These shapes can be connected and related to each other. The aim of the play is to answer questions on each level and to connect them. The questions on each shape are based on the questions from the third workshop, but also derived from the inner leadership reflections of the first and the second workshop:

» Orange (Synthesis level) = *What do you love in nature?*
» Yellow (Critique level) = *What does our society need?*
» Blue (Redesign level) = *What does your organization or team need for eco-social decision making?*

The play is prototyped for 12 participants and has three levels, where each participant has to create his/her artefact by answering the questions. The play takes 100 minutes in total. It starts with a short introductory presentation on Systemic Design and Systems Thinking (10 minutes). After the introduction the participants get the first question for the orange coded level of "Synthesis" *(What do you love in nature?)* presented and have to write down their answers (15 minutes). They are allowed to write one term on one acrylic shape and can use as much as needed. After this they have to answer the second question on the yellow level "Critique" *(What does our society need?)* by writing on the yellow parts (15 minutes) and after this they step over to the third blue level "Redesign" *(What does your organization or team need for eco-social decision making?)* (15minutes). After writing down the answers for all three levels the participants have time to stick the single acrylic parts together. They have to decide on their own how to connect and relate the individual terms or answers on the color-coded levels to each other (15 minutes). With the elements of the play kit the participants create a structure or artefact that helps to understand complexity and reflects the professional leadership ecosystem.

At the end, the participants are asked to present, discuss and reflect their artifact in groups of two (30 minutes).

Conclusion

A systemic orientation of the economy is needed, and this requires leaders who are trained to think in systems and create impact (Barge et al., 2008). Particularly young employees (Millennials and generation Z) might be questioning classic leadership roles and are orienting themselves towards companies that represent social and ecological values (Titko et al., 2020). There is a potential in serious play to evolve the role of leaders from "mitigators" and innovators to systems thinkers, interested in shaping ecological and social change.

The three workshops are related to the process of the authors Systemic Design Model (Synthesis, Critique and Redesign). The methods of Grounded Theory and Action Research took place in every step and allowed to reflect and develop the co-created SDOL play kit.

In the SDOL workshops there were plenty of playful moments and discussions about leadership values and the systemic perspective. A shared trust was quickly established in the play, which enabled honest feedback and made independent collaborations between the partners. Through the co-created plays in the workshops the leaders were empowered to experiment corporate cultures and to use ludic interventions to further develop the innovative power of their organizations. Set into the business context, systemic play suggestions, like the re-enactment and in particular the "salary dice", raised ethical questions. Leadership might have the inner conflict of acting fairly, both with new recruits and the annual salary negotiations. But fairness might be a question of perspective. This example shows clearly that the systemic perspective of the manager might be missing in order to be able to make a socially fair decision. Therefore the focus in SDOL is on a constant reflection with the participants on the effects and adequacy of the methods that were developed in a co-creative process. Especially in the third workshop, the participating leaders revealed a lot about themselves as they went to an inner journey to find their "IKIGAI". Inspired by the third workshop a first SDOL play kit was prototyped.

At present, this co-created play is still in work and evaluated. It is being tested with a bigger group of managers and there is a need to explore the play kit with a higher relation to nature as well as to specify socio-ecological questions regarding the particular fields of action in daily leadership.

Acknowledgments

References

Badjoko, B. & Jalote-Pamar, A. & Deshmukh, S. (2018). Design Thinking in Business Strategy. *Conference Proceedings of the Academy for Design Innovation Management. 1*.

Barge, J. K., & Fairhurst, G. T. (2008). Living Leadership: A Systemic Constructionist Approach. *Leadership*, 4(3), 227–251. https://doi.org/10.1177/1742715008092360

Beehner, C.G. (2019). *System Leadership for Sustainability* (1st ed.). Routledge. https://doi.org/10.4324/9780429324512

Beerel, A. C. (2020). Ethical leadership and global capitalism : a guide to good practice. *Routledge*.

Brown Stuart L. & Christopher C. Vaughan. (2009). *Play : How It Shapes the Brain Opens the Imagination and Invigorates the Soul*. New York: Avery.

Burns, D. (2014). Systemic action research: Changing system dynamics to support sustainable change. *Action Research* (London), 12(1), 3–18. https://doi.org/10.1177/1476750313513910

Glaser, B. G. & Strauss, A. L. (1967). The Discovery of Grounded Theory. *Strategies for Qualitative Research*. Chicago: Aldine.

Gray, P. (2013). *Definitions of Play*. Scholarpedia. 8. 30578.10.4249/scholarpedia.30578.

Habicher, D., Erschbamer, G., Pechlaner, H. et al. (2021). Transformation and Design Thinking: perspectives on sustainable change, company resilience and democratic leadership in SMEs. *Leadership, Education, Personality: An Interdisciplinary Journal*, 3:145–156. https://doi.org/10.1365/s42681-022-00028-x

Huizinga, J. (1955). *Homo ludens: A study of the play element in culture*. Boston, MA: Beacon Press.

Jalote-Parmar, A., Deshmukh, S. & Badjoko, B. (2017). Design Thinking in Business Strategy: Application in Human Resource and Pricing, In E. Bohemia, C. de Bont & L. S. Holm (Eds.), Conference Proceedings of the Design Management Academy (Vol. 1, pp. 161-178). London: Design Management Academy. doi: 10.21606/dma.2017

Kamiya, Mieko. (1966). *Ikigai ni tsuite*. Tōkyō : Misuzu Shobō

Magistretti, S., Tu Anh Pham C., Dell'Era, C. (2021). Enlightening the dynamic capabilities of design thinking in fostering digital transformation. *Industrial Marketing Management*. Volume 97. Pages 59-70. ISSN 0019-8501. https://doi.org/10.1016/j.indmarman.2021.06.014.

Mainemelis, C., & Ronson, S. (2006). Ideas are born in fields of play: Towards a theory of play and creativity in organizational settings. *Research in Organizational Behavior*, 27: 69–81.

Mugadza, G. & Marcus, R. (2019). A Systems Thinking and Design Thinking Approach to Leadership. *Expert Journal of Business and Management*, 7(1), pp.1-10.

Rubin, K. H., Fein, G. G., & Vandenberg, B. (1983). Play. In P. H. Mussen & E. M. Hetherington (Eds.), *Handbook of child psychology*, Vol. 4, 693-774. New York: Wiley.

Titko, J., Svirina, A., Skvarciany, V., Shina, I. (2020). Values of Young Employees: Z-Generation Perception. Verslas teorija ir praktika. 21. 10-17. 10.3846/btp.2020.11166.

Vygotsky, L. S. (1978). The role of play in development. In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.), *Mind in society: The development of higher psychological processes*, 92-104. Cambridge, MA: Harvard University Press.