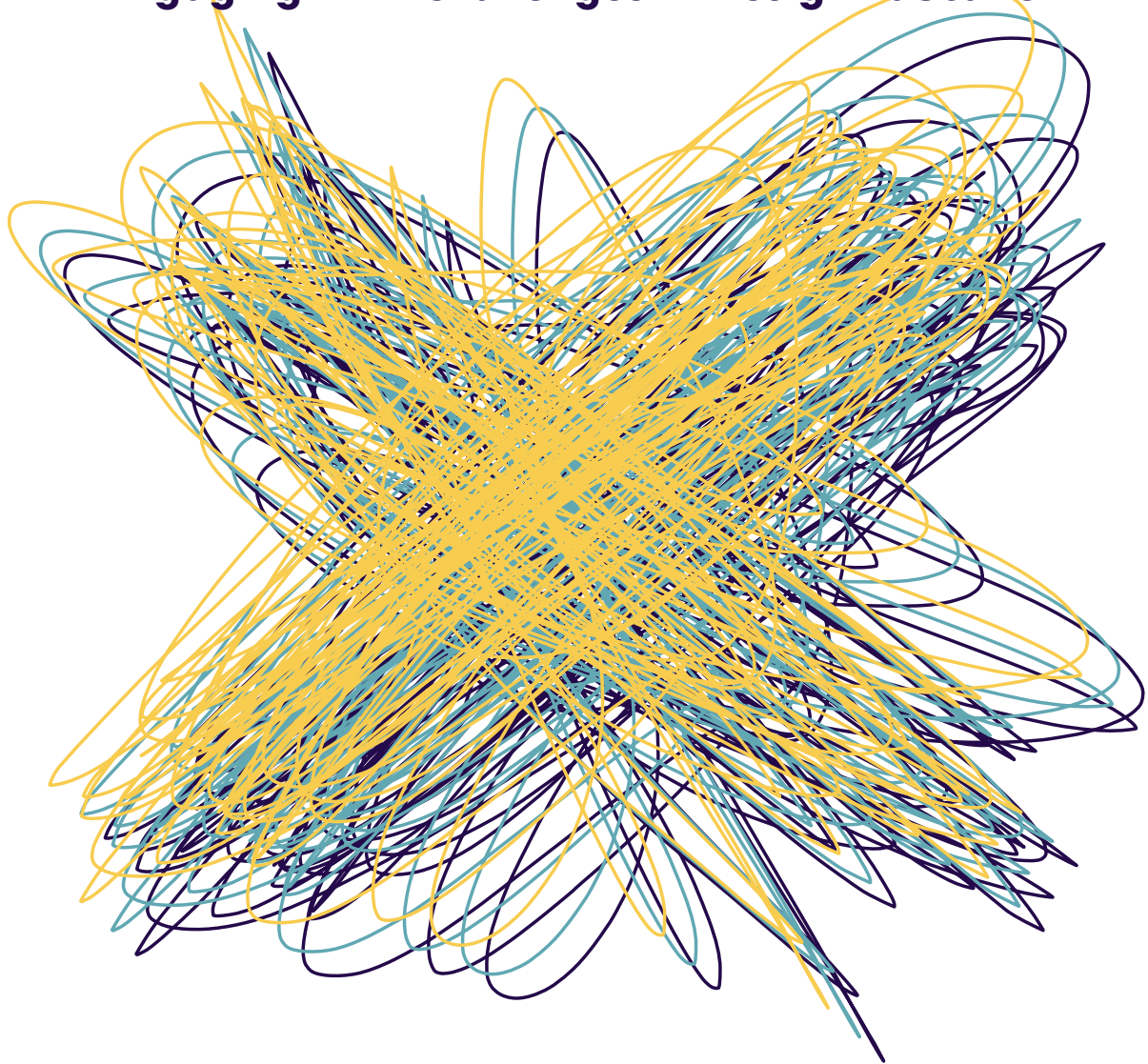# VOLUME 4
PROCEEDINGS

DRS LEARNxDESIGN 2021
Engaging with Challenges in Design Education

**6th International Conference
for Design Education Researchers**

24–26 September 2021
Jinan|China

Editors

Erik Bohemia
Liv Merete Nielsen
Lusheng Pan
Naz A.G.Z. Börekçi
Yang Zhang

Volume 4 | 卷4

Section 09

Futures of Design Education: Beyond Time & Space

Introduction

The aim of this track was to explore possible alternatives in design education. When planning the overall scope of the track, we were interested in understanding how educators try to enable more accessible, inclusive, and adaptable design education models. We were particularly interested in understanding the affordances of time and space in design education and sustainable education models where members, independent of where they are and how they are, have the possibility to access education. We wanted to venture beyond the 'studio' to explore possibilities of social dynamics and communities in design education that support their members with experiences, feelings, and senses of identity concerning institutions and fellow members. The five submissions accepted from 23 authors approach the theme of this track from various perspectives, highlighting different aspects of approaches to other ways and directions of understanding, leading to change and transformation in design education.

In their paper "Ten Scenarios for the Future of Design Education", Lore Brosens, Johannna Renny Octavia, Annelies Raes, and Marina Emmanouil studied the need for change in design education and explored the current approaches that have been studied at micro, meso, and macro levels. The study explores systematic reviews, and focus groups to come to an understanding of existing literature while highlighting ten scenarios within the framework to develop a space of discussion around the future of design education. In the ten scenarios discussed over the paper, the context in which design education could potentially operate in, is discussed at the societal, organizational, and course or curriculum level. Some of the main themes that emerge from the progress of design education at the macro-level include integration of the concept of lifelong learning in design education, potential partnership models with the industry, and possible interactions with societal problems through cybernetics. At the meso level, design education is being discussed as an advanced trans-disciplinary field, the role of space and scenarios without the usage of studio space are in debate, and finally, design education as a flex-path learning experience is being discussed. At the micro-level of discussion, the inclusion of specific knowledge and skills in design education, non-hierarchical educational structures, the entanglement of learning processes and their outcomes, and bringing science-based decision making into intuition as part of the design education are more visible. The ten scenarios included in this paper, not only discuss a range of alternatives related to the subject of this track, but also enable the debate on the other submissions.

In the next paper "Doing Research in Design", Sandra Dittenberger, Stefan Moritsch, Agnes Raschauer, and Julia Pintsuk-Christof bring forward the need to address and discuss the inclusion of research in design education. Multiple practices of design have increasingly been closing the boundaries between creative practice and scientific research. To prepare future design graduates for the challenges they will be facing in projects they take part in, the integration of scientific approaches to the design process at the earliest stage of higher education, BA level is a relatively ignored domain that the authors have explored. This topic is explored using a mixed-methods case study to understand the challenges that students face when carrying out research in design. Students' perceptions of applying scientific methods to their projects related to the different stages of the process, such as project planning, design research, project conceptualization, implementation of design and project presentation, have been explored to understand the difficulties in integrating research practice into design education. The authors make three main conclusions from the study that develop

recommendations for imagining a more inclusive design education. To help design students in building a more constructive connection between research and design, an understanding must be developed at the earliest level of learning in the bachelor studies. Design teaching and assessment must also develop by aiming at a more generalist yet methodologically robust and solution-oriented approach to link research and practice. To make this possible, it is also necessary to develop an open process that is communicable, unambiguous, and methodologically robust. This paper addresses the track by exploring opportunities in enabling a new domain in the scope of design education, also keeping it accessible for students while staying aware of the diverse range of future professional practices they may engage in.

In their visual paper, "Learning Remotely through Diversity and Social Awareness", Ferrarello Laura, Fiadeiro Rute, Hall Ashley, Galdon Fernando, Anderson Paul, Grinyer Clive, Stevens John, and Lee Chang Hee share the process of utilizing the grand-challenge approach to engage a global network of post-graduate designers from 21 countries, collaborating across 13 different time zones. After being faced with the societal problems caused by the pandemic, the project has been organized by realizing the need to reframe designers' operation to a more proactive stance. The research of this study has been driven by action and supported with participant observation that has enabled the authors to codify clusters of insights taken from qualitative and quantitative data collected. The quadruple diamond model adopted from the double diamond has been used to guide and follow the activities of participants through the divergent and convergent stages of the research. This research brings together the experience and data developed through collaboration with 388 interdisciplinary and multicultural groups and interactions between academic, technical staff, postgraduate designers, and global experts to explore the possibility of a new model for a design that can address and tackle societal issues. This paper demonstrates a range of possibilities, opportunities, and challenges when pushing the boundaries of the design process across space and time while tackling societal issues with a network of designers and experts across the globe.

In their paper, "From Eyes to Ears" by Daniela Hensel, Birgit Bauer, and Stefanie Voss, the authors explore the integration of audio design at the BA design education level. The research brings forward sound in communication design as an influential element in UX and UI design, and thus the case study was developed by providing a project course to 12 communication design students at the BA level, where participants have been asked to develop language-based solutions with the support of experts with extensive expertise or knowledge in the field of language and skills in the area. In the implementation of the course, the research finds opportunities in the usage of design skills such as mediation between concept, product development, methods, and problem-solving skills by students in the field of voice design as part of communication design projects. In addition to this, by having voice design as part of the topics learned, authors express that it has extended what communication design means for students and has widened their understanding of the practice. Exploring a topic that may be considered outside of the disciplinary practice of design, yet related and symbiotic, may enable the discussion on potential teaching models that can allow for further integration of topics outside of the common practice to be introduced and integrated into design education.

Yanfang Zhang, Christian Cruz, Shinichiro Ito, and Tokushu Inamura explore factors leading to the implementation of design projects produced as part of social impact-oriented design workshops in their paper entitled "Social Implementation of Design Workshops Output". Through the research, authors explore outcomes of design workshops organized annually in Fukuoka City between 2012 and 2020. To achieve this goal, archival research has been done on the data collected through the activities organized as part of these workshops accompanied by semi-structured interviews organized with team leaders of participating groups in the workshops. The paper addresses a range of influential factors on the implementation and sustainability of designs developed through this workshop, such as the role of stakeholders during and after the workshops, teams' structures, interactions between internal and external actors, and methodologies used during the workshops. This paper emphasizes the role of time on the sustainability and impact of learning and practice in education, through exploring the educational impact tested with time, then reflecting and evaluating factors and qualities that can lead to a higher impact of education on its stakeholders.

The collected submissions in our track "Futures of Design Education: Beyond Time and Space", recognize the importance of extending boundaries of design education when it comes to its dependency on time, space, and discipline of design as it is known and practiced. They explore the new methods in design education that challenge the status quo by reflecting on current approaches and exploring alternative futures that can change design education at different levels, towards different disciplines and practices, or test current approaches against time to better understand ways for improved and more impactful approaches. These attempts help design education to grow and evolve for the future where the boundaries between time and place may form differently and designers may learn and practice the field in new ways.

Yashar Kardar
Middle East Technical University, Turkey
yashar.kardar@metu.edu.tr
Yashar is chief innovation manager of Viveka full-service accelerator, and a master's graduate of industrial design from Middle East Technical University. He is a researcher, practitioner, and entrepreneur focused on utilizing communities to enable social and economic innovation with projects across the Middle East, Europe, and North America.

Lilyana Yazirlıoğlu
TED University, Turkey
Middle East Technical University, Turkey
lilyana.yazirlioglu@tedu.edu.tr
Lilyana is a PhD student at Middle East Technical University in the department of Industrial Design and she recently finished her master studies in the same department within the area of product longevity and emotional durability. She is also a research assistant in TED university in the department of Industrial Design.

Ayşegül Özçelik
Aalborg University, Denmark
aoz@create.aau.dk
Ayşegül is a PhD student in the Industrial Design section. Her current research interests are design for sustainability and science and technology studies.

Sarper Seydioglu
Middle East Technical University, Turkey
sarper.seydioglu@gmail.com
Sarper is an award-winning product designer and management consultant with an MSc in industrial design (METU) and a BA in business administration (TEDU). He specializes in interaction design, design for user experience, and design for well-being, with a further emphasis on developing experimental products for practical uses.