Section 6.d
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Introduction: Designing the Designers: Future of Design Education

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In preparing programmes and curriculum to develop the designers of the future, educators are continually reminded of the ever-changing world of professional practice. Increasing levels of project complexity, technology uptake, cross-disciplinary and cross-cultural practice are providing many opportunities for design educators to develop innovations in the way we design and deliver education experiences.

In considering the future of Design Education and how students might be prepared for professional practice, the papers in this track explore a range of ideas, from encouraging student engagement, and identifying new professional roles, to proposing frameworks for educators, and provocations for re-thinking learning and teaching designs. Innovation is a common theme in a context of rapid change.

We begin with \textit{Where have all the ideas gone? An anatomy of sketch inhibition among student designers}. In this paper, Lisa Thurlow and Peter Ford reflect upon the importance of traditional skills development alongside digital processes. They advocate a greater awareness of digital and manual tools and design-specific research types.

Interdisciplinary practice is another focus. In \textit{Learning about others: Developing an interdisciplinary approach in design education}, Pınar Kaygan and Özümcan Demir highlight the importance of interdisciplinary practice for complex problem solving in a context of developing technology and innovation. In their case study, they recount students’ learning experiences, including the development and understanding of collaboration approaches across disciplines.

Xiaozhu Lin and Arturo Dell’Acqua Bellavitis take this further in comparing pedagogy and communication across cultures. \textit{The approach of didactic laboratory in fashion design education: A comparative case study} discusses Chinese students experiencing a different
pedagogical approach in a didactic laboratory, versus the transmission style they were familiar with before. This resulted in the development of different competencies suited to the rapidly evolving global industry context.

In their paper, *Cultural context and service design: Developing critical and meaning-making capacity*, Laura Santamaria and colleagues report on the experimental introduction of a socio-cultural lens to the design process. They underline the interconnections between design and innovation.

With a focus on design as a social activity, Robin van Oorschot, Frido Smulders and Erik Jan Hultink also discuss *Qualities of entrepreneurial design conversations*. They suggest that local creation of meaning helps students in the business proposition development process.

Harun Kaygan and colleagues focus on partnerships within participatory design projects, in their paper *Encounters and shifting identities: Students’ experiences of multi-stakeholder participatory design*. They emphasise that regular encounters with multiple stakeholders are necessary in fostering openness and flexibility in students’ self-image as designers, as well as versatility in approaches appropriate to the context.

Building on this, Terence Fenn and Jason Hobbs discuss ways to assist students in developing strategic resolution of complex design problems. Their paper, *Experience-led design strategy*, describes examples of applying two design tools and related techniques to guide students’ strategic design thinking.

In *Gamifying design education*, Kerstin Oberprieler, Simon Leonard and Robert Fitzgerald again highlight the importance of designers being able to deal with complexity and develop innovative solutions. They suggest that educational practice falls short, however, in terms of multi-disciplinary and multi-modal contemporary learning styles. In linking the challenges faced by gamification and experience designers, they also suggest that gamification can engage students and improve learning outcomes.

In *Exploring future of design education*, Sapna Singh highlights the dynamic nature of design and future roles for designers, including: traditional designer; constructive design researcher; hybrid co-designer; and systems sense maker. Scenarios and implications for curriculum design and development are described.

Raphael Hammel and Genevieve Mosely also discuss a new professional role in their case study in *Educating design innovation catalysts through design interventions*. They see the use of design to innovate as an emerging practice in organisations, facilitated by a role they describe as a ‘design innovation catalyst’. They argue that this thinking can inform curriculum development and improving the effectiveness of future educational programmes, as students prepare for employment.

In her paper, *A systems approach to taught postgraduate design management*, Elizabeth MacLarty describes the responsibility of design academics in linking theory with practice in organizational contexts. She proposes a professional practice schema as a bridge between theory and practice of teaching and managing coursework (taught) postgraduate design management programmes.

Ways in which the physical environment influences creativity of designers and design students is the focus of Katjaa Thoring and colleagues, in *Inspiration space: Towards a*
theory of creativity-supporting learning environments. Their insights, drawn from literature and eight interviews, are intended to inform designing or adjusting creative learning spaces, whilst also working towards a theory of creativity-supporting learning environments.

In *Evolving pedagogy: Is studio a state of mind?* Louise McWhinnie and J Fiona Peterson position design studios as potentially becoming mainstream for innovative creative practice, within and across disciplines. In exploring the influence of place and space on learning and working in studio, they see the studio emerging as a new form of educational state of mind. They suggest that adapting conceptions of studio can be effective in supporting students, in design and other disciplines, as they prepare for evolving industry practice.

**Papers**

The following papers are included in the conference proceedings for this Designers: Future of Design Education track:

**Where have all the ideas gone? An anatomy of sketch inhibition among student designers** – THURLOW Lisa and FORD Peter, De Montfort University, Leicester, UK.

**Learning about others: Developing an interdisciplinary approach in design education** – KAYGAN Pınar and DEMİR Özümcan, Department of Industrial Design, Middle East Technical University, Turkey.

**The approach of didactic laboratory in fashion design education: A comparative case study** – LIN Xiaozhu and DELL’ACQUA BELLA VITIS Arturo, Department of Design, Politecnico di Milano, Italy.

**Cultural context and service design: Developing critical and meaning-making capacity** – SANTAMARIA Laura, ESCOBAR-TELLO Carolina, ROSS Tracy, BOHEMIA Erik, Design School, Loughborough University, UK.

**Qualities of entrepreneurial design conversations** – VAN OORSCHOT Robin, SMULDERS Frido and HULTINK Erik Jan, Delft University of Technology, The Netherlands.

**Encounters and shifting identities: Students’ experiences of multi-stakeholder participatory design** – KAYGAN Harun, DEMİR Özümcan, KORKUT Fatma and GÜNGÖR BONCUKÇU Itir, Department of Industrial Design, Middle East Technical University, Turkey.

**Experience-led design strategy** – FENN Terence and HOBBS Jason, University of Johannesburg, South Africa.

**Gamifying design education** – OBERPRIELER Kerstin\(^a\)\(^b\), LEONARD Simon\(^b\) and FITZGERALD Robert\(^b\)

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**Exploring future of design education** – SINGH Sapna, The Ohio State University, USA.

**Educating design innovation catalysts through design interventions** – HAMMEL Raphael and MOSELY Genevieve, University of Technology Sydney, Australia.
A systems approach to taught postgraduate design management – MACLARTY Elizabeth, Northumbria University, UK.

Inspiration space: Towards a theory of creativity-supporting learning environments – THORING Katja\textsuperscript{a}, GONÇALVES Milene\textsuperscript{a}, MUELLER Roland M\textsuperscript{c}, BADKE-SCHAUB Petra\textsuperscript{a} and DESMET Pieter\textsuperscript{a}
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Evolving pedagogy: Is studio a state of mind? – McWHINNIE Louise\textsuperscript{a} and PETERSON J Fiona\textsuperscript{b}
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Conclusion
Among all papers trying to answer the question of how to prepare and empower design students to solve complex societal problems, there is a common understanding that creativity and innovation are key tools in the designers’ tool-kit. Thus, design education should foster these aspects as part of the current and future role of the designer. But how? The papers show a myriad of approaches, thereby contributing to the process of informing what design is and the value it carries in a broader context.

Here the track contributions highlight the importance of a mindset and an interdisciplinary problem solving approach, with a focus on people as the main value framed by the broader socio-cultural context. The influence of the physical (and virtual) space such as the design studio, gamification, direct relation with industry and the confrontation with multiple stakeholders, entrepreneurship, a systems approach with a holistic view on the increasing complexity of societal problems, scenario building, participatory and co-creation methods, and experience-led design, capture the breadth of current debates on design education.

Through exploring tools and teaching methods, teaching environments and teaching for professional practice, the papers contribute four broad recommendations on the future of design education: (1) the value of ongoing reframing of traditional design education through new lenses; (2) the significance of practice-based learning to foster empathy amongst students for the professional design practice and its wider influence; (3) introduction of new opportunities which come with new technologies, new thinking, and new global and local lifestyle needs; and (4) identification of opportunities to reframe boundaries of design education and practice through interdisciplinarity and collaborations.

The wide range of contributions captured by the track offers a diverse view of what design education is and its potential for the future, including new perspectives and avenues to discover. Thus, this collection is an invitation for all to take part in the conversations in how we can ‘design the designers’ and explore the future of design education and in turn the future of design practice and theory.
About the Track Facilitators

**Associate Professor Fiona Peterson, MEd, PhD** is a Principal Fellow of the Higher Education Academy, UK. She is the Chief Investigator of an Australian cross-disciplinary learning and teaching research project on digital employability futures; and author of a book, *Creative Leadership Signposts in Higher Education*.

**Chair professor Henri Christiaans** is dean of the School of Design & Human Engineering at UNIST, South-Korea. He was involved in the development and implementation of new design programs at universities all over the world. His research interests are in design methodology and education.

**Selena Griffith** is UNSW Engineering Scientia Experience Manager and Senior Lecturer in the UNSW Business School’s Centre for Social Impact. She is interested in how design methods can be used for social impact and how they can be used to facilitate cross disciplinary collaboration. Selena is chief editor of the book *Visual Tools for Developing Cross-disciplinary Collaboration, Innovation and Entrepreneurship Capacity*.

**Dr Noemi Sadowska** is a Senior Fellow of the Higher Education Academy, UK and Head of Programme with experience in curriculum development and programme launch. Her research examines learning experiences emerging when management and design intersect resulting in conceptual shifts defining learners understanding of both disciplines.
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