• Paper / Proposal Title: Virtual Reality in Design. A new studio environment

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• Abstract (300 words): Rapid prototyping, 3D renderings and digital user-interfaces are examples of technological advancements that have influenced the design process of work, teaching and research. Virtual Reality (VR) introduces a new paradigm in collaboration and designing of spaces, prototypes and experiences. The affordances presented by the current advancements in VR can inspire design educators to rethink the development of course pedagogy. However, studies and explorations have shown that VR platforms and tools are usually not created for design education and thus are limited for studio work. Building on research in design studio pedagogy of constructivism in screen-based virtual environments, the author firstly provides a critical analysis of various affordances in VR applications, including the development of a custom one. Secondly the author explores the concept of the collaborative VR sandbox as a tool for the creation of the VR design studio. Designing in VR poses important questions and considerations design educators need to address as facilitators within their own studios. With this knowledge the design educator will have a better understanding of how VR can change the way design knowledge is being shared, understood and reimagined within the studio.

• Author(s) Biography (200 words each): M. F. Yang Chen was born and raised in Singapore where he earned his diploma in marketing and worked in the industry for a couple of years. He moved to the United States
and earned a Bachelor of Science in Industrial Design in 2018 from The Ohio State University. He has been a teaching assistant for the Design foundations program at The Ohio State University for the last 2 years and is set to graduate with an MFA in Design Research and Development at the end of 2020.

He is a design researcher with a love of exploring and incorporating new technologies as part of his process. He developed the Desyntekh mindset approach, emphasizing the convergence of design, synthesis and technology. His research revolves around utilizing extended reality as a tool within design research to understand and create meaningful user experiences. He has developed a new framework of Co-design/Participatory design in Virtual Reality which is currently pending publication.