

Design in the Age of Climate Change

Eli Blevis, Ph.D.
Associate Professor of Informatics
Director, Human-Computer Interaction/Design Program
School of Informatics and Computing (SoIC), Indiana University–Bloomington
<http://eli.informatics.indiana.edu>
eblevis@indiana.edu



Design in the Age of Climate Change is the title of my forthcoming book I am writing with Shunying An Blevis. The book is organized into five main chapters and I will try to describe each of these chapters in my talk, time permitting.

The introductory chapter targets awareness of what is happening and the implications of what is happening for how the world will be different than it has been before and how our view of design must also change. The second chapter—**do less (harm) with design**—proposes notions of sustainable design, especially in terms of ontological design [1] both as means of mitigating and adapting to the effects of climate change. The third chapter—**understand more (meanings & implications) with design**—focuses on meaning-making as a material of designing awareness in the age of climate change, especially with a focus on visual thinking as a primary tool of design. The fourth chapter—**transcend all (boundaries) with design**—focuses on transdisciplinarity in design [2] as a means of tackling the situations induced by the effects of climate change ahead, especially with a focus on learning. The fifth chapter—**balance all (local and global implications) with design**—focuses on the confluence of design and polycentrism [3] as a response to the age of climate change specifically in the arenas of the sociotechnical and the socioentrepreneurial.

While this book is very much intended as scholarship and scholarly reflection, it also seeks to provide practical guidance about design in the arenas of Human-Computer Interaction (HCI), Design, Learning, Visual Thinking, Sociotechnical Systems, and Socioentrepreneurial Systems—all of which play a role in our view in scaffolding the theory and practice of design as it must be to sustain us in the coming age. As such, it is also intended as something of a primer for designers and design educators, across this broad spectrum of disciplinary and transdisciplinary concerns—that is especially HCI, Design, Learning, Visual Thinking, Sociotechnical Systems, and Socioentrepreneurial Systems, as well as the notion of transdisciplinarity, itself.

Stated another way, this is not a book about climate change, *per se*. Rather, it is a book about design, with a particular emphasis on visual thinking, design learning, and design theory. As such, the imagery in this book is as important as the text. Moreover, the advice in this book is also targeted at design curricula and it includes many suggestions for project-based learning and how to teach design at scale. Finally, the book focuses on design scholarship not so much as a disciplinary code, but rather as a style of transcending disciplinary boundaries for the sake of confronting the issues and adapting to the conditions ahead.

Notes

- [1] Ontological design is the notion that design concerns making choices about ways of being and that the use of the things we design unavoidably in turn design us and our lives. The use of the term and definition here owes to: Terry Winograd, & Fernando Flores. (1986). *Understanding Computers and Cognition: A New Foundation for Design*. New York: Addison-Wesley, Inc.; Anne-Marie Willis. (2006). *Ontological designing*. Design Philosophy Papers. #02/2006.; Tony Fry. (1999). *A New Design Philosophy: An Introduction to Defuturing*. New South Wales, Australia: NSWU Press.; Martin Heidegger. (1954). The Question concerning Technology. In William Lovitt, *The Question Concerning Technology and Other Essays*. Harper Torchbooks, [1954] 1977. 3-35.
- [2] Transdisciplinary design is the notion of transcending disciplinary boundaries in the service of larger scale, values-oriented goals. The use of the term here owes to: Manfred Max-Neef. (2005). Foundations of transdisciplinarity. *Ecological Economics*, 53(1), 5-16.; Basarab Nicolescu. (2002). *Manifesto of Transdisciplinarity*. Translation: Karen-Claire Voss. Albany, NY: SUNY Press.
- [3] By polycentrism, we refer to Vincent & Elinor Ostrom's notions of an organization of governance as "many centers of decision making that are formally independent of each other" as stated in: Elinor Ostrom. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change* 20 (2010) 550–557, wherein Ostrom adds, "Participants in a polycentric system have the advantage of using local knowledge and learning from others who are also engaged in trial-and-error learning processes. As larger units get involved, problems associated with non-contributors, local tyrants, and inappropriate discrimination can be addressed and major investments made in new scientific information and innovations. No governance system is perfect, but polycentric systems have considerable advantages given their mechanisms for mutual monitoring, learning, and adaptation of better strategies over time."

References

I have published many papers on these themes. There are four in particular that may serve as background to the talk:

- Blevis, E. and Blevis, S. (2010). Hope for the best and prepare for the worst: interaction design and the tipping point. *interactions* 17, 5 (Sep. 2010), 26-30. (<http://doi.acm.org/10.1145/1836216.1836223>)
- Blevis, E. (2010). Design challenge based learning (DCBL) and sustainable pedagogical practice. *interactions* 17, 3 (May 2010), 64-69. (<http://doi.acm.org/10.1145/1744161.1744176>)
- Blevis, E. and Stolterman, E. (2009). Transcending disciplinary boundaries in interaction design. *interactions* 16, 5 (Sep. 2009), 48-51. (<http://doi.acm.org/10.1145/1572626.1572636>)
- Blevis, E. (2007). Sustainable interaction design: invention & disposal, renewal & reuse. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (San Jose, California, USA, April 28 - May 03, 2007)*. CHI '07. ACM Press, New York, NY, 503-512 (<http://doi.acm.org/10.1145/1240624.1240705>)

Biographical Information

Eli Blevis is an Associate Professor of Informatics in the Human-Computer Interaction Design program of the School of Informatics and Computing at Indiana University, Bloomington. His primary area of research, and the one for which he is best known, is sustainable interaction design. This area of research and his core expertise are situated within the confluence of human computer interaction as it owes to the computing and cognitive sciences, and design as it owes to the reflection of design criticism and the practice of critical design. His research also engages design theory, digital imagery, and studio-based learning.

