

Organized by:

Institute of interdisciplinary studies of art,
design and advanced technologies (IAT),
Ladislav Sutnar Faculty of Design and Art,
University of West Bohemia, Czech Republic

Master's Program, Design Faculty
HIT – Holon Institute of Technology, Israel

Call for Papers

DESIGN

International Online Conference / 25.05.21

The impact of Artificial Intelligence (AI) on Contemporary Design

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25.05.21 International Online Conference –
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CALL FOR SUBMISSIONS

In the new and complex techno-human reality in which designers function today, the clear distinction between humans and machines that has characterized modern Western thought in the past is becoming increasingly blurred: Computer systems and code logic are embedded in the most essential characteristics of human existence, while automated machines are acquiring traits typical of living systems. Thanks to new developments in the field of artificial intelligence (AI), these new algorithm-based machines are no longer classified only as computational apparatus of a significant logical nature, but they also take part in fields that were previously considered unique to human beings, especially in the creative field. Therefore, the binary distinction between a thinking human-being who learns and creates, and the executive machine that optimizes and improves human activity through embedded automation systems is being undermined.

Indeed, artificial intelligence platforms using deep learning and neuronal networks are currently able to autonomously perform many of the tasks that designers used to carry out. Recently, such applications have been developed,

and they are capable of generating designs with speed and diversity that human designers cannot accomplish: illustrating original images, designing furniture, drawing architectural plans, creating fonts and suggesting marketing campaigns — to mention just a few examples. AI systems deal with complex problem-solving challenges and with dynamic systems based on feedback loops, and can generate behavioural predictions and link entities from diverse ontological fields. They participate in both planning and production, and touch on the two key components of design: the aesthetic and the operational — form and function. In some cases, they operate as an entity that is external to the phenomena they act upon, while in others, they serve an internal quality that emerges and grows like a natural phenomenon.

These developments in AI pose a significant threat to many design professionals who will be replaced by artificial intelligence that will make human labour redundant. However, the integration of AI systems into the design process also provides new opportunities: collaboration with AI systems allows for design on a level of complexity and scale that human cognition cannot encompass. Therefore, based on the recognition of the creative capabilities of the machine, the challenge for designers today is to produce a wide array of embodied intelligences that can be shared by human and machine.

Despite the great potential inherent in embedding AI apps into the design process, the manner in which they are implemented as well as the logic and infrastructures behind their operation, must be critically examined. The massive financial resources invested in AI in recent years have turned it into a major factor in the shaping of political, civil and private spaces. The principles that outlined AI's developments in the military, consumer as well as the entertainment industries, which are the engines behind AI, are projected onto the ways in which AI is being used in disciplines with completely different value systems and needs. In addition, the fact that it is not possible to trace how these systems work (the black boxes they create) requires additional attention to the ethical

issues involved in the implementation of AI systems in the design process.

This conference invites designers, theoreticians, AI developers and the high-tech industry members to explore the different applications used in AI systems in the field of design and to examine their present and future potential implications.

Relevant topics for the conference include, but are not limited to, the following questions:

- + What are the new opportunities and threats facing designers vis-a-vis the use of artificial intelligence?
- + What is the role of the designer in the age of AI? In what way is his/her role changing?
- + How does the politics behind AI systems influence design products?
- + What happens when humans are excluded from design processes that take part autonomously between machines?
- + To what extent can machines be autonomous in the design process? Can machines perform creative processes in design?
- + Will AI's entry into the design realm redefine the design discipline and will it blur its distinction from other domains?
- + How can the use of AI in design be channelled to socially beneficial design?
- + What is the impact of AI on design Aesthetics?

The conference will be held online on Tuesday, May 25, 2021.

The proposals — lecture title, abstract of up to 300 words and short CV — should be submitted **on the website** no later than **March 25, 2021**. Notification of acceptance will be sent by April 5.

Lectures should not exceed 20 minutes.

Conference language: English.

Participating in the conference is free of charge.

Conference organizers:

Dr. Yael Eylat Van Essen, Dr. Arnost Marks

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