

COOP
DESIGN
RESEARCH

—
M.Sc.
PROGRAM

SOFTWARE CODE AS DESIGN CREATION

A GENERATIVE APPROACH TO GRAPHIC AND
PRODUCT DESIGN

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ABSTRACT

Generative design gives an opportunity to generate artefacts a designer or artist could never draw or imagine. This can benefit vast design fields and has already wide applications in graphic design, industrial design, architecture and art. It is the creation and the use of algorithms to obtain one or more design results. The use of algorithms entails that a designer cannot modify the image directly, but has to change the algorithms. This paper focuses on the form of generative design which employs software code. We examine which methods designers may use to draft and create the corresponding code-based generative systems. While in design creation it is generally hard to predict what ultimately comes out, it seems particularly hard to predict one type of design we consider. Their unpredictability stems from the fact that through the power of software code, they achieve a new level of complexity. Such systems cannot be drafted visually; we will ask what tools a designer can use nonetheless to draft such designs without creating the actual systems in code.

Keywords:

Generative Design, Processing, Drafting, Code, Algorithms