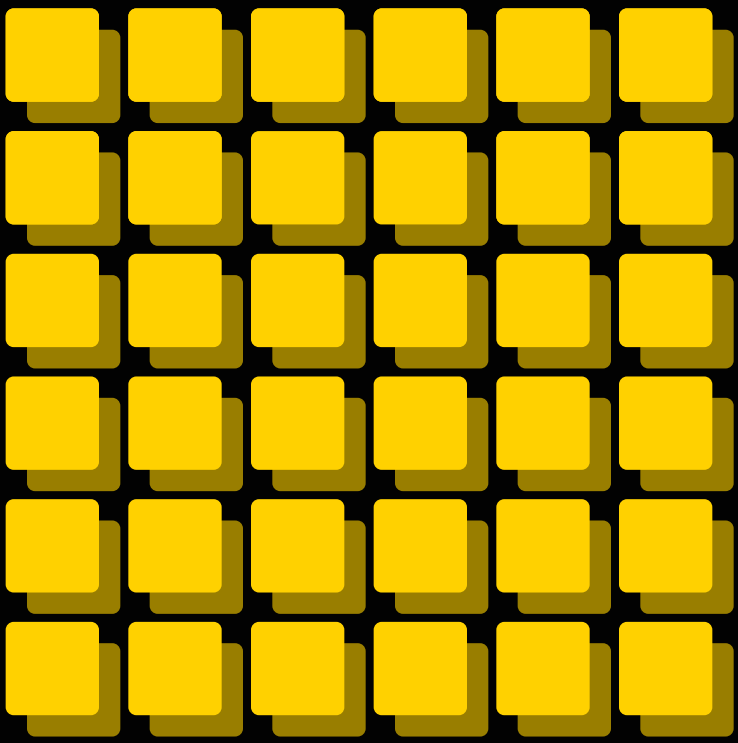
AI GENERATED TYPEFACES



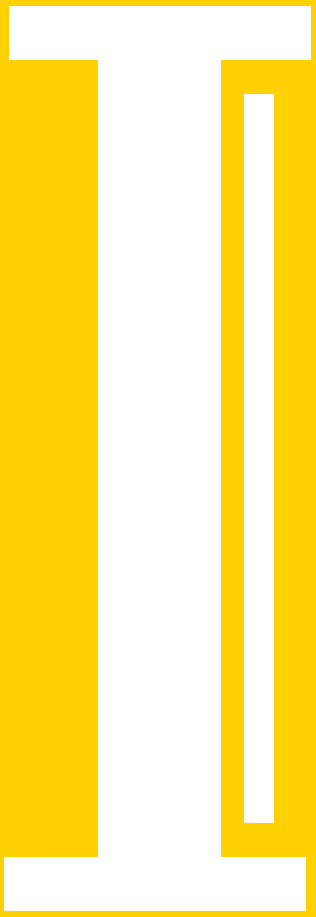
A TYPOGRAPHIC MANUAL

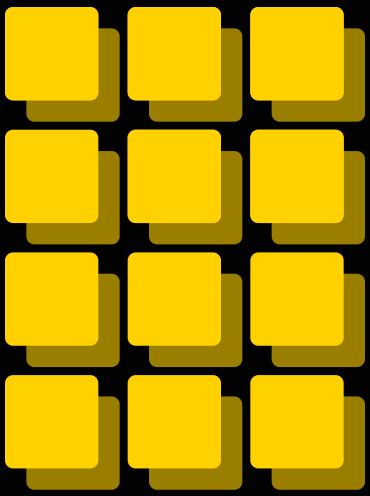
AI GENERATED TYPEFACES - A TYPOGRAPHIC MANUAL

THEODOR PEIFER
HOCHSCHULE MÜNCHEN
1. EDITION, 2023

INTRODUCTION

I - GOTHGAN TYPE





THIS TYPOGRAPHIC MANUAL AIMS TO REFLECT ON THE COLLABORATION BETWEEN HUMANS AND MACHINES TO SOLVE CREATIVE TASKS.

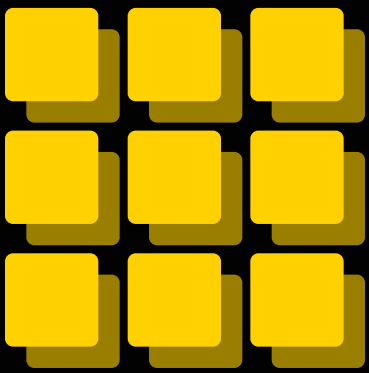
THE PROCESS OF USING AI FOR A CREATIVE PROJECT INVOLVES BOTH PASSIVE AND ACTIVE PARTICIPATION FROM THE USER. THE PASSIVE PART INVOLVES UTILIZING THE AI TO GENERATE RESULTS AND IDEAS, THEREFORE REMOVING THE NEED FOR HUMAN CREATIVE WORK ON THE SURFACE LEVEL. HOWEVER, THE ACTIVE ROLE INVOLVES CREATING AND DESIGNING THE AI ITSELF, WHICH REQUIRES A SIGNIFICANT AMOUNT OF CREATIVE THOUGHT AND EFFORT.

BY DOING SO, WE ACHIEVE A KIND OF META-CREATIVITY: WE USE CREATIVITY TO FIND A WAY TO SOLVE A CREATIVE PROBLEM.

E - IKOGAN TYPE

ALL GLYPHS IN THIS MANUAL WERE CREATED BY AN ARTIFICIAL INTELLIGENCE AND REWORKED BY HAND.

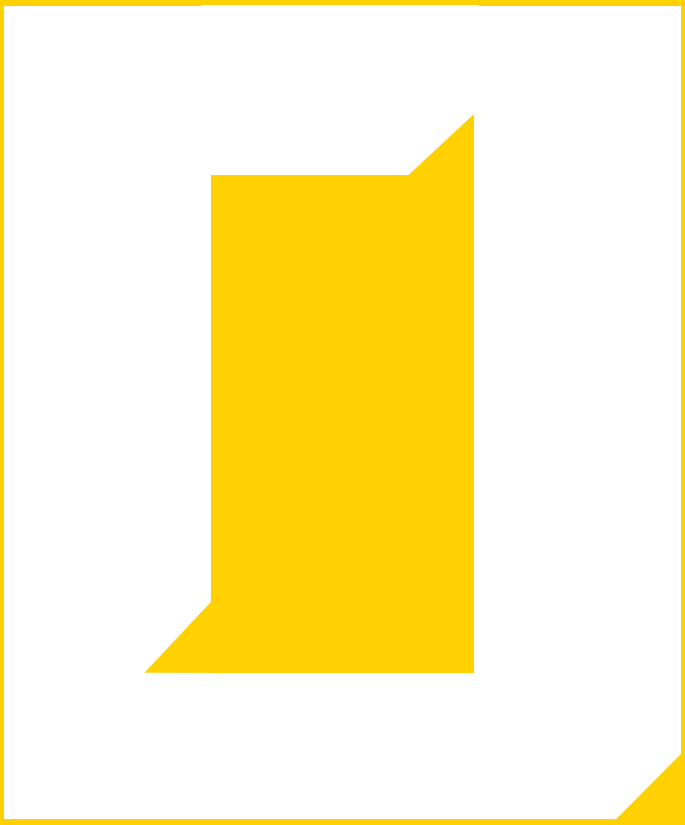
EVEN THOUGH MANY GLYPHS ARE NOT LEGIBLE, THE MODEL STILL PROVIDES A CONSISTENT STYLE OVER THE ENTIRE ALPHABET, WHICH CAN BE USED AS INSPIRATION FOR THE TYPOGRAPHER.



B – GOTHGAN TYPE

GENERATED TYPEFACES

O - SQUAREGAN TYPE



SQUAREGAN TYPE

GOTHGAN TYPE

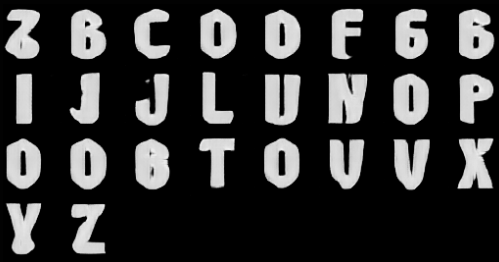
IKOGAN TYPE

ZONE - KATOGAN TYPE

ZONE

INDOGAN TYPE

COMIGAN TYPE

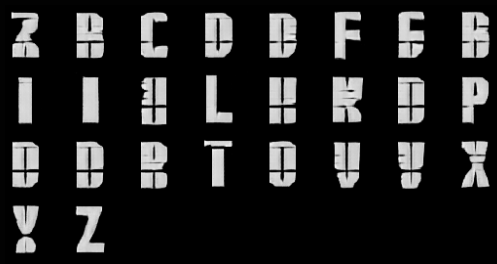


ITALIGAN TYPE

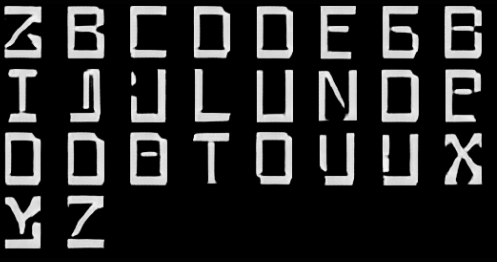
JULIA - COMIGAN TYPE

JULIA

INDUSTIGAN TYPE



KATOGAN TYPE

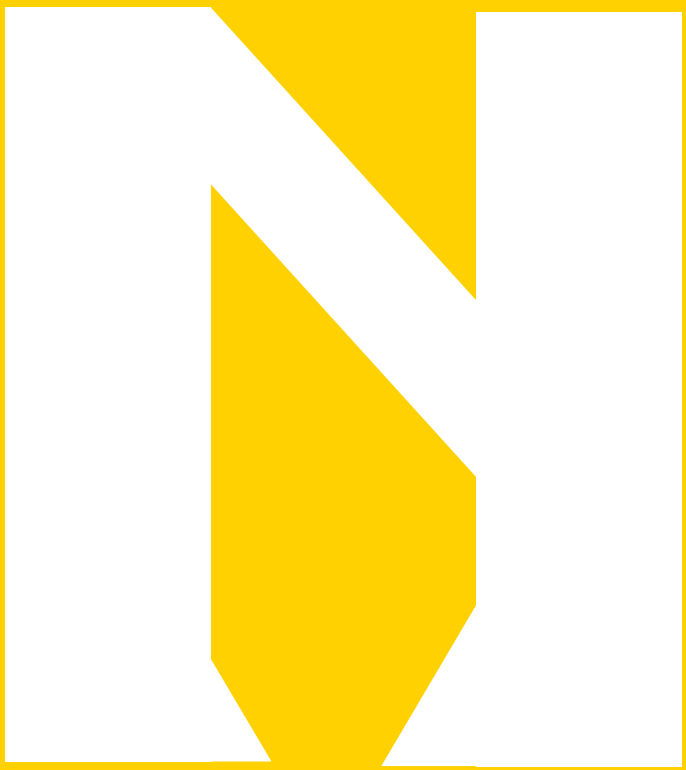


PIXGAN TYPE

FOX - PIXGAN TYPE

PROCESS

N - SQUAREGAN TYPE



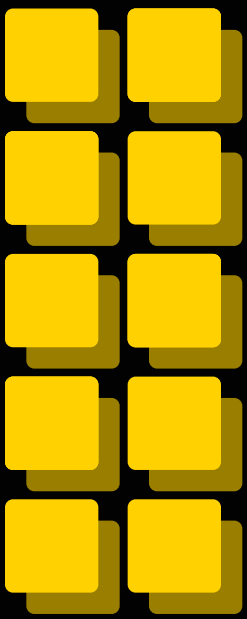
TO GENERATE THE GLYPHS A SO CALLED "GENERATIVE ADVERSARIAL NETWORK" (GAN) WAS USED AS PROPOSED BY HAYASHI ET AL.[1] IN 2019.

A GAN CONSISTS OF TWO NEURAL NETWORKS: THE "GENERATOR" AND THE "DISCRIMINATOR".

THE GENERATOR LEARNS TO PRODUCE 64x64 IMAGES CONTAINING GLYPHS AND THE DISCRIMINATOR LEARNS TO DIFFERENTIATE BETWEEN GENERATED AND "REAL" GLYPHS, THAT HAVE BEEN CREATED BY HUMANS. THE GOAL OF THE GENERATOR IS TO FOOL THE DISCRIMINATOR WITH REALISTIC IMAGES, AND THE GOAL OF THE DISCRIMINATOR IS TO PERFECTLY CLASSIFY FAKE AND REAL IMAGES. THIS WILL FORCE THE GENERATOR TO PRODUCE NEW, UNSEEN GLYPHS.

THE GENERATED IMAGES ARE THEN FURTHER PROCESSED.

THE CODE FOR THIS PROJECT CAN BE FOUND ON GITHUB[2].



[1] GlyphGAN: Style-Consistent Font Generation Based on Generative Adversarial Networks, Hideaki Hayashi, Kohtaro Abe, Seiichi Uchida, 2019

[2] https://github.com/theopfr/font-generation-gan

C - IKOGAN TYPE

ORIGINAL

REWORKED

ORIGINAL

REWORKED

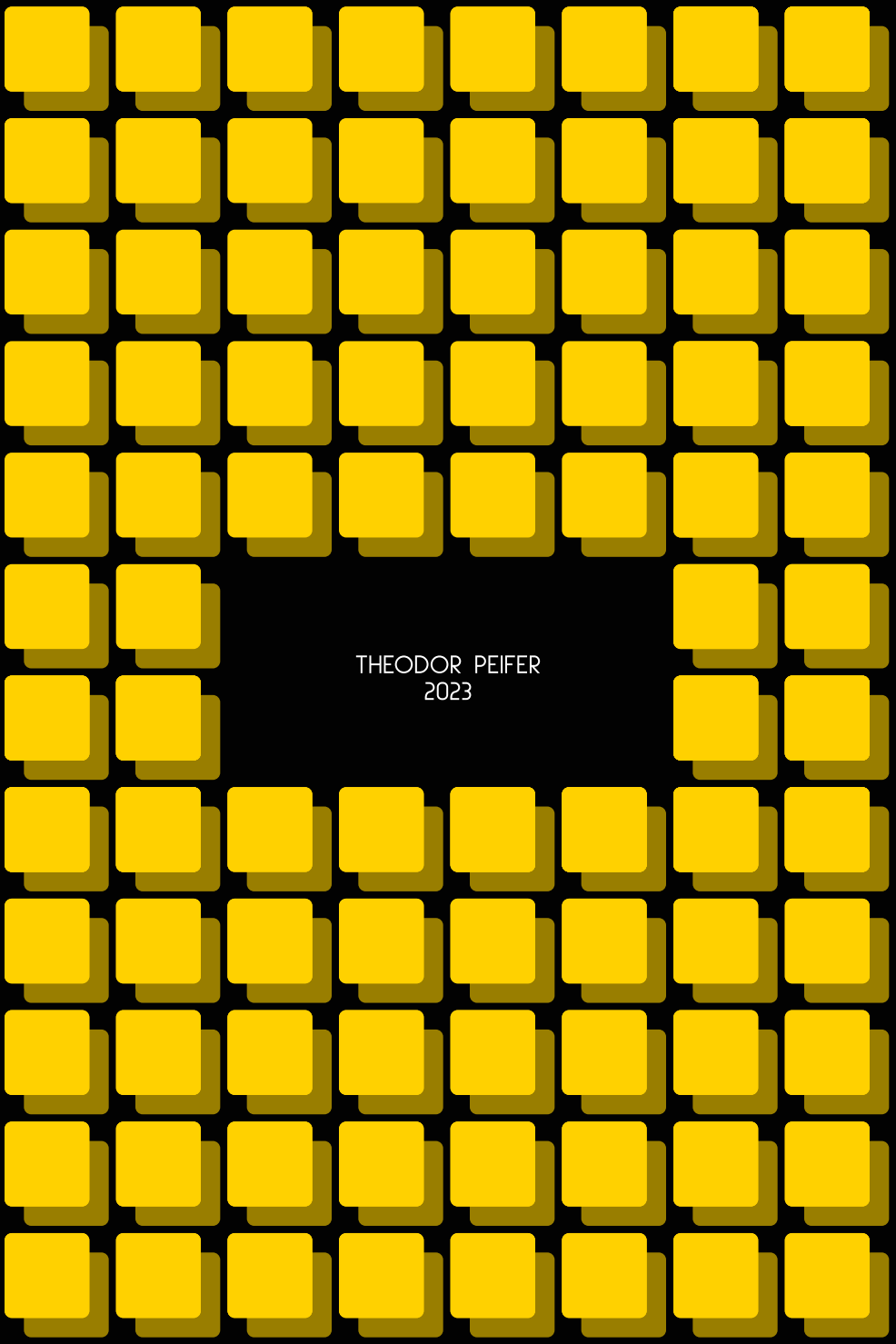
ORIGINAL

REWORKED

ORIGINAL

REWORKED

F - COMIGAN TYPE


THEODOR PEIFER
2023