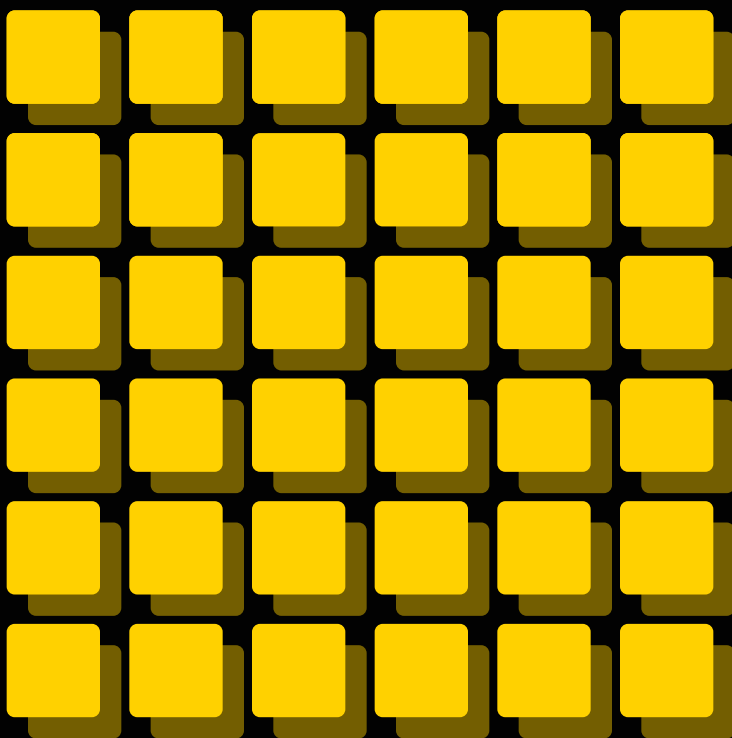


GENERATIVE TYPOGRAPHY

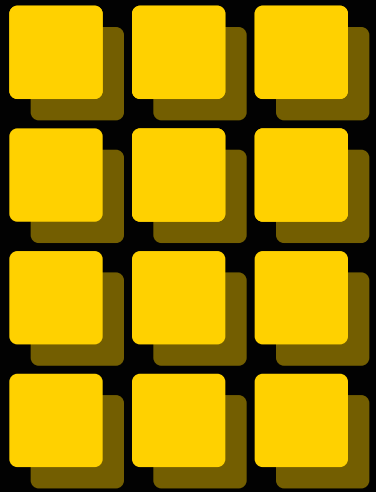


A TYPOGRAPHIC  
MANUAL

# 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.

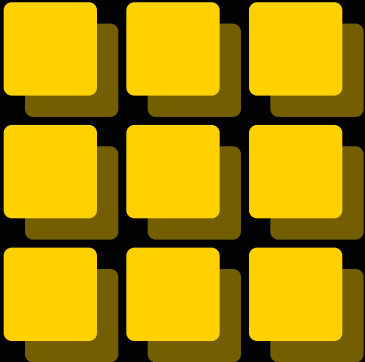
BY DOING SO WE ACHIEVE A KIND OF META-CREATIVITY: WE USE CREATIVITY TO FIND A WAY TO SOLVE A CREATIVE PROBLEM.

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.



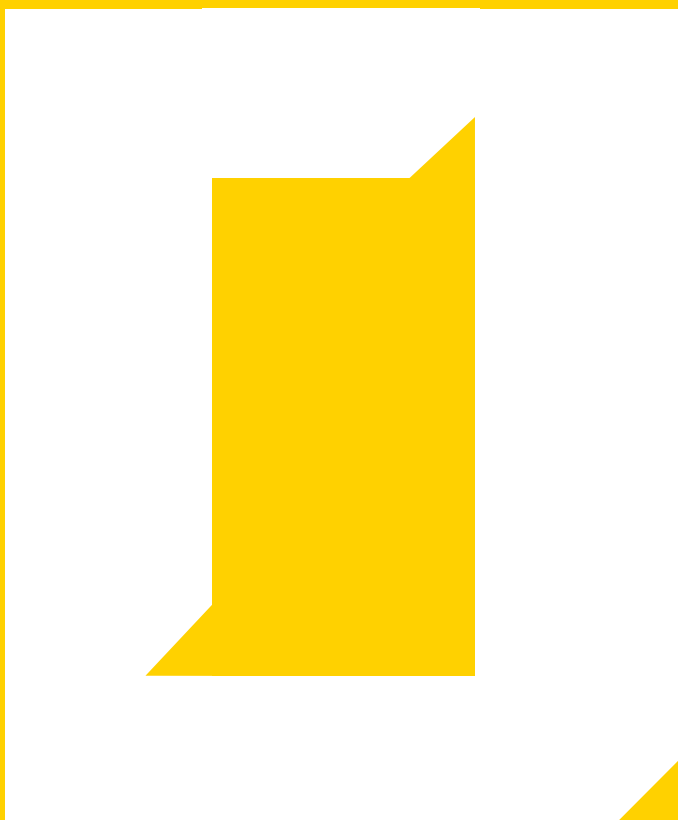
## B – GOTHGAN TYPE



# GENERATED FONTS



○ – SQUAREGAN TYPE



## SQUAREGAN TYPE

A B C D E F G  
H I J K L M N O  
P Q R T O U V X  
Y Z

## GOTHGAN TYPE

A B C D E F G  
H I J K L M N O  
P Q R T O U V X  
Y Z

## IKOGAN TYPE

A B C D E F G  
H I J K L M N O  
P Q R T O U V X  
Y Z



ZONE – KATOGAN TYPE

ZONE

## INDOGAN TYPE

Y A B C D E F G  
 I J K L M N O P  
 Q R S T U V W X  
 Y Z

## COMIGAN TYPE

Z B C D E F G B  
 I J J L U N O P  
 O O B T O U V X  
 Y Z

## ITALIGAN TYPE

A B C C D F G D  
 I I D L D H D D  
 O O Q T O U V X  
 Y Y



JULIA - COMIGAN TYPE

**JULIA**

INDUSTIGAN TYPE

Z B C D D F E B  
I I J L H K D P  
O O R T O V V X  
Y Z

KATOGAN TYPE

Z B C D D E B B  
I J J L U N D E  
O O B T O U U X  
Y Z

PIXGAN TYPE

Z B C C B F E B  
I O H L H H D D  
O O R i O U X X  
Y Z



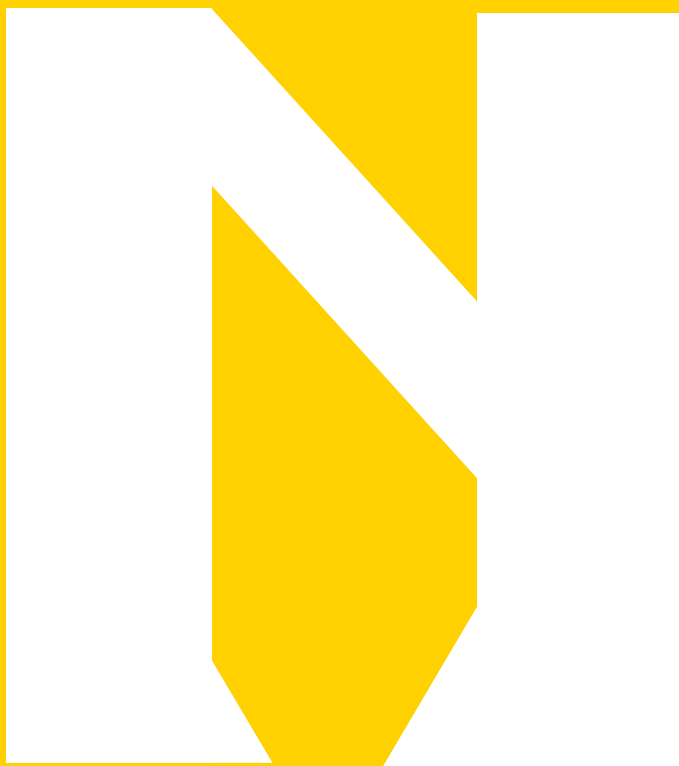
FOX – PIXGAN TYPE

FOX

# PROCESS



N – SQUAREGAN TYPE



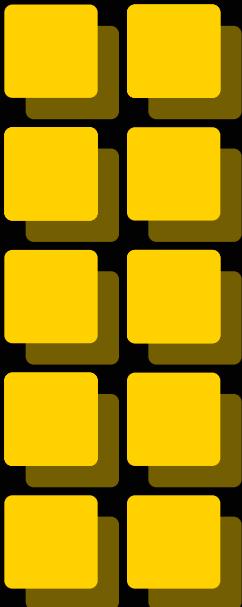
TO GENERATE THE GLYPHS A SO CALLED "GENERATIVE ADVERSARIAL NETWORK" (GAN) WAS USED AS PROPOSED BY HAYASHI ET AL.<sup>1</sup> IN 2019.

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

THE GENERATOR LEARNS TO PRODUCE 64x64 IMAGES CONTAINING GLPHYS 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 PRODUCTE NEW, UNSEEN GLYPHS.

THE GENERATED IMAGES ARE THEN FURTHER PROCESSED.

THE CODE FOR THIS PROJECT CAN BE FOUND ON GITHUB<sup>2</sup>.



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<sup>1</sup> GlyphGAN: Style-Consistent Font Generation Based on Generative Adversarial Networks, Hideaki Hayashi, Kohtaro Abe, Seichi Uchida, 2019

<sup>2</sup> <https://github.com/theopr/font-generation-gan>

C – IKOGAN TYPE



ORIGINAL

INTRO

REWORKED

INTRO

ORIGINAL

RICH

REWORKED

RICH

ORIGINAL

BLUE

REWORKED

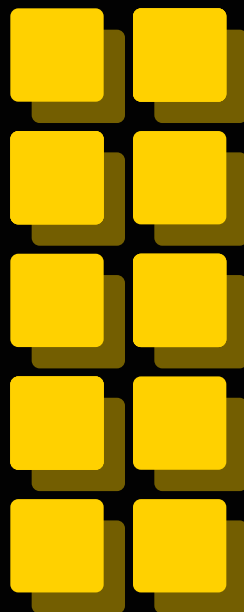
BLUE

ORIGINAL

BOIL

REWORKED

BOIL



F – COMIGAN TYPE

F



THEODOR PEIFER  
2023