Evolutionary History of Art Creation Process

A perspective from Technology Advancement
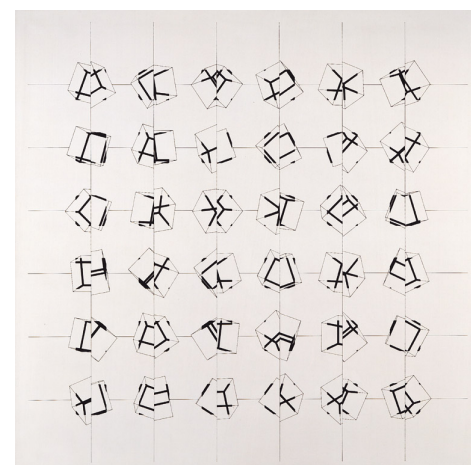
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Phase I

Classical Art

In traditional art forms, such as paintings and sculptures, both of the making and the evaluation are done by artists. They paint or sculpt by themselves, evaluate their work after each step and trying to align it with their goals.
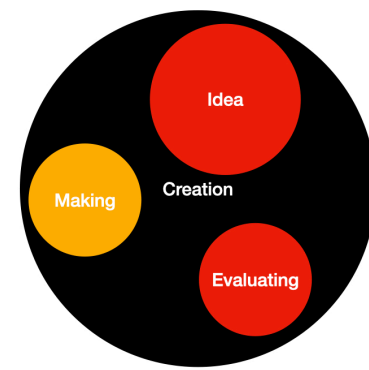

Phase II

Contemporary art

With the advancement in Computer technology, as well as the movement of Conceptual Art, the making was then replaced by machines. An artist designed a "dummy-proof" procedural to be performed by either a person or a computer. Once a work is done, the artist can evaluate it, and decide if he needs to keep it, discard it, or modify the procedural. The procedurals were in form of texts, and transformed to computer algorithms in the age of computers.

My Proposal

A new artist-machine creative process

Given the nature of machine learning tools, I think in the new paradigm, the machine should be in charge of both the making and the evaluating, but the artists are still privileged to come up with the idea, so the core of the project. Concerning the making, artists still design the procedural for machine to perform. This procedural should be able to produce various results based on certain parameters. As to the results evaluating, instead of having the artist go over those results and distinguish the good from the bad, the artist trains a neural network to complete this task. By selecting images that represents the artists idea and train the neural networks with selected images, hopefully the neural networks can perform as well as the artist in evaluation, but more importantly, with a bonus of additional creativity from machine.

The evaluation results are now interpreted also by the machine for next iterations, to keep, to discard the results or to change the parameters in the procedural. After iterations of making and evaluation, the artists should get many versions of image batches that evolves as iteration goes.

- ⬤ Neural Networks
- ⬤ Artist
- ⬤ Machine

Phase III

Recent Years

The evaluation process also gradually incorporates computer techniques for two reasons, to implement more complicated ideas and to invite new aesthetics.

More complicated ideas: artists are dealing with huge volume of data, which far exceed the human's processing capability.
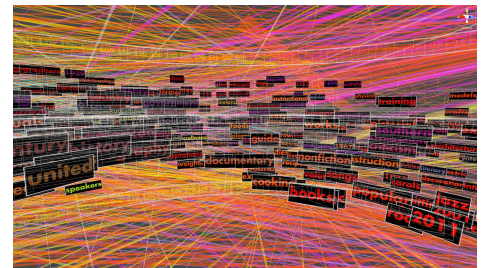
New aesthetics: Traditionally, the usage of random number and perlin noise in generative art, or the data analysis in visualization are aimed to add some _machinery aesthetics_ to the final work.
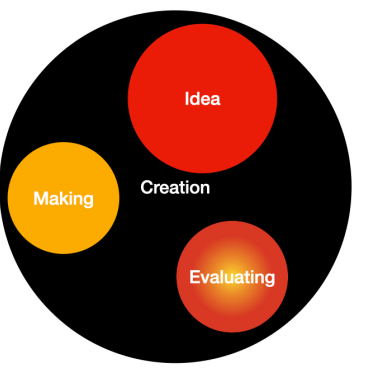
Phase IV

Now

In attempts to incorporating the family of the new machine learning tools in the creation process, artists find they are difficult to work with, because those tools, if used in generative way, are black boxes that can't be divided into subcomponents and rearranged freely. In other words, the making and evaluating can't be decoupled.

References:

1. The Ambassadors (1533) By Hans Holbein
2. David(1501–1504) By Michelangelo
3. Isometric Projection #13, ink and pencil drawing on paper (1981) By Sol LeWitt
4. P-197 J, ink on paper (1977–87) By Manfred Mohr
5. Flight Patterns, data visualization(2015) By Aaron Moblin
6. Making Visible the Invisible, (2005 - 2014) By George Legrady
7. Memories of Passersby I(2019) By Mario Klingemann
8. Neural Glitch(2018) By Mario Klingemann

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