Art & Artificial Intelligence

George Legrady © 2022
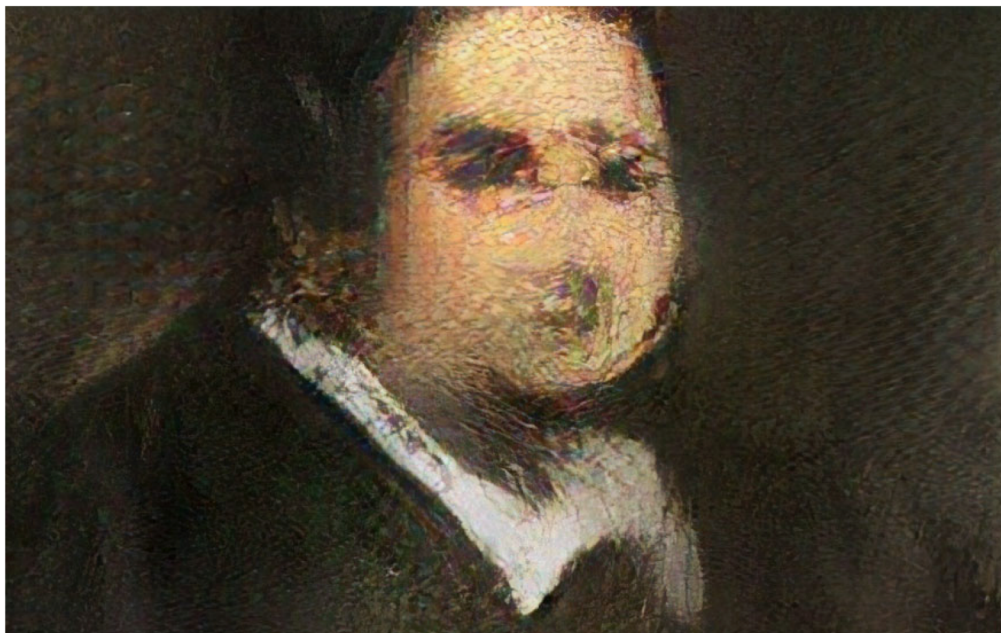
Experimental Visualization Lab

Media Arts & Technology

University of California, Santa Barbara

Deep Dream, Alex Mordvintsev (2015)

Is artificial intelligence set to become art's next medium?

12 December 2018

Main image:
Portrait of Edmond Belamy
(detail) created by GAN
(Generative Adversarial
Network), which will be
offered at Christie's on 23-
25 October. Image ©
Obvious

Highlighted sale

AI artwork sells for $432,500 — nearly 45 times its high
estimate — as Christie's becomes the first auction house to offer
a work of art created by an algorithm

The portrait in its gilt frame depicts a portly gentleman, possibly
French and — to judge by his dark frockcoat and plain white collar — a
man of the church. The work appears unfinished: the facial features
are somewhat indistinct and there are blank areas of canvas. Oddly,
the whole composition is displaced slightly to the north-west. A label
on the wall states that the sitter is a man named Edmond Belamy, but
the giveaway clue as to the origins of the work is the artist's signature
at the bottom right. In cursive Gallic script it reads:

The Arts as a Discipline

The structuralist anthropologist Claude Levi-Strauss Described in the late-1950s, the field of art as one of the few remaining unregulated disciplines where social structures do not constrain what is possible

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Nonetheless, there are local constraints defined through customs, and historical conditions

But artists have the opportunity to *juxtapose unrelated knowledge domains*, and *break conventions* as they wish, something not possible in other disciplines as in the sciences

Each new artwork that has influence makes a contribution by *challenging the existing order*, and previous works that have made the history

Synthetic: **That say something about the world**
Synthesize some insight/knowledge and in most cases in unexpected ways

Subjective: **that express a subjective perspective**
Informed or make a statement that is evaluative, and expressive of a   feeling

Syntactic: **that explore the syntax of communication**
Test the communication process, explore the form, structure, materials, aesthetic coherence

Discursive: **Artworks require knowledge of prior works and how they engage with existing knowledge**

John Baldessari (1968)

THE SHAPE OF TIME
REMARKS ON THE HISTORY OF THINGS

GEORGE KUBLER

PAINTING FOR KUBLER

THIS PAINTING OWES ITS EXISTENCE TO PRIOR PAINTINGS. BY LIKING THIS SOLUTION, YOU SHOULD NOT BE BLOCKED IN YOUR CONTINUED ACCEPTANCE OF PRIOR INVENTIONS. TO ATTAIN THIS POSITION, IDEAS OF FORMER PAINTING HAD TO BE RETHOUGHT IN ORDER TO TRANSCEND FORMER WORK. TO LIKE THIS PAINTING, YOU WILL HAVE TO UNDERSTAND PRIOR WORK. ULTIMATELY THIS WORK WILL AMALGAMATE WITH THE EXISTING BODY OF KNOWLEDGE.

Challenges to the Existing Order

Recently, there has been an explosion of interest in machine-learning algorithms capable of creating new images, sound, and other media content.

Computers can now produce content that we might reasonably call novel, sophisticated, and even compelling. When researchers, artists, and the general public discuss the future of machine-learning in art, the focus is usually on a few basic questions: *How can we make content generation algorithms even better and faster? Will they put human creators out of a job? Are they really making 'art'?* (Dr. Rebecca Fiebrink)

As art integrates computational processes, current challenges to the field is that *non-domain experts can engage and have influence, for instance computer scientists (who have the technical know-how), hackers, etc.*

- Machine-learning can aid human creators engaged in rapid prototyping of new interactions with sound and media.

- Machine-learning can support greater embodied engagement in design, and it can enable more people to participate in the creation and customization of new technologies.

- Furthermore, machine learning is leading to new types of human creative practices with computationally-infused mediums, in which a broad range of people can act not only as designers and implementors, but also as explorers, curators, and co-creators.

Dr. Rebecca Friebrink, University of the Arts, London, Creative Computing Institute.

SFMOMA Installation (1979), Harold Cohen (1928-2016)

Autonomous painting, Computer Museum, Boston (1995), painter Harold Cohen

Lynn Hershmann Leeson

Constructing Roberta Breitmore   Lynn Hershman 1975

① Lighten with Dior eyestick light. ② "Peach Blush" Cheekcolor by
Revlon. ③ Brown contour makeup by Coty. ④ Shape lips with brush,
fill in with "Date Mate" scarlet. 5. Blond wig. ⑥ Ultra Blue eye-
shadow by Max Factor. ⑦ Maybelline black liner top and bottom.
⑧ $7.98 three piece dress. ⑨ Creme Beige liquid makeup by Artmatic.

c. Lynn Hershman 19
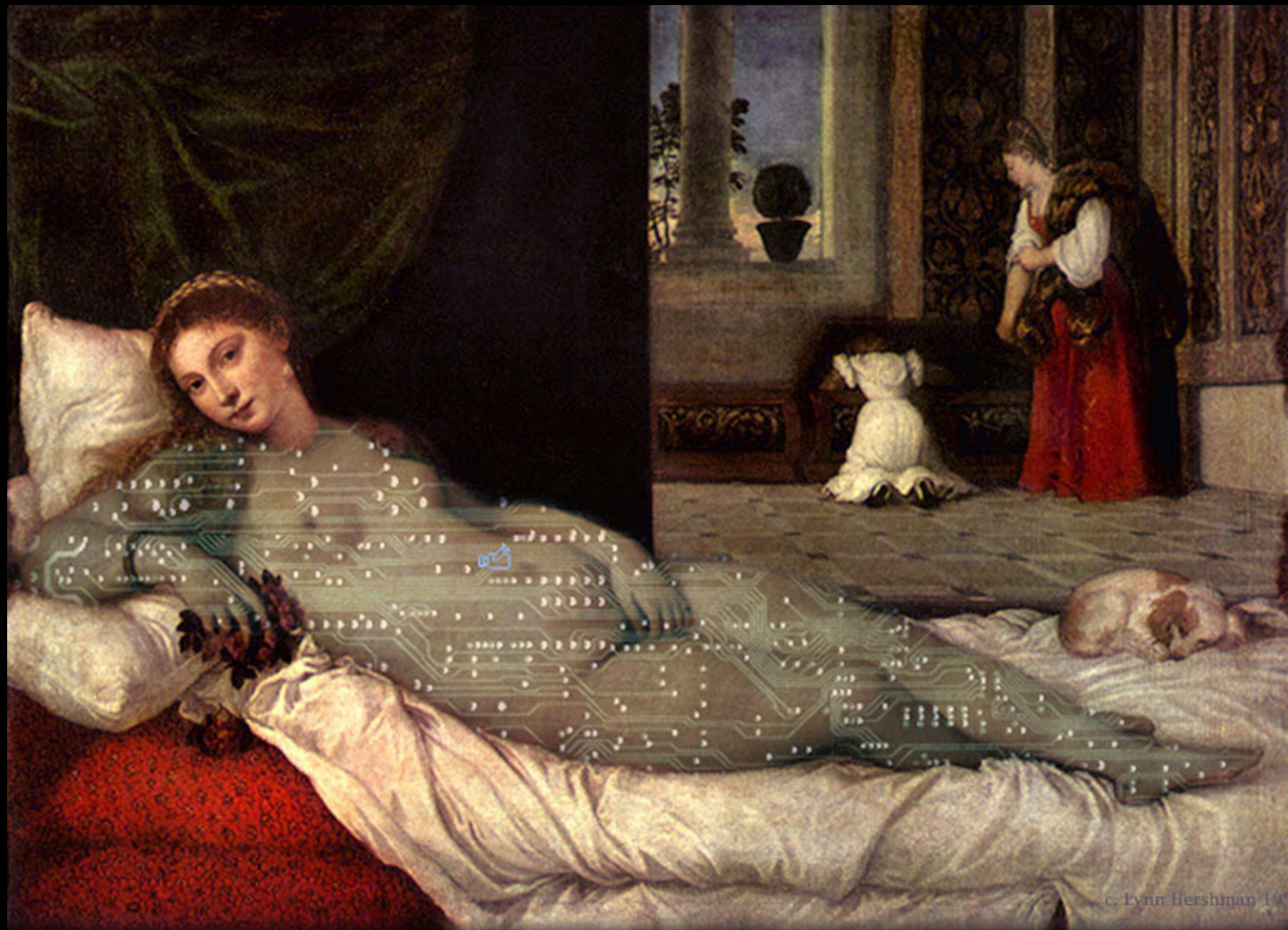
Generative Art

Generative (emergent) art refers to art that in whole or in part has been created with the use of an autonomous system. An autonomous system in this context is generally one that is non-human and can independently determine features of an artwork that would otherwise require decisions made directly by the artist.

A term going back to the computer graphics works in the 1960s (Georg Nees, Frieder Nake, Max Bense, etc.)

Philip Galanter: Generative art refers to any art practice where the artist creates a process, such as a set of natural language rules, a computer program, a machine, or other procedural invention, which is then set into motion with some degree of autonomy contributing to or resulting in a completed work of art.

Generative Art

"Generative art" often refers to algorithmic art (algorithmically determined computer generated artwork) and synthetic media (general term for any algorithmically-generated media), but artists also explore systems of

- Chemistry

- Biology, bio-engineering

- Mechatronics and robotics

- Smart materials

- Randomization, Mathematics

- Physics

- Etc.

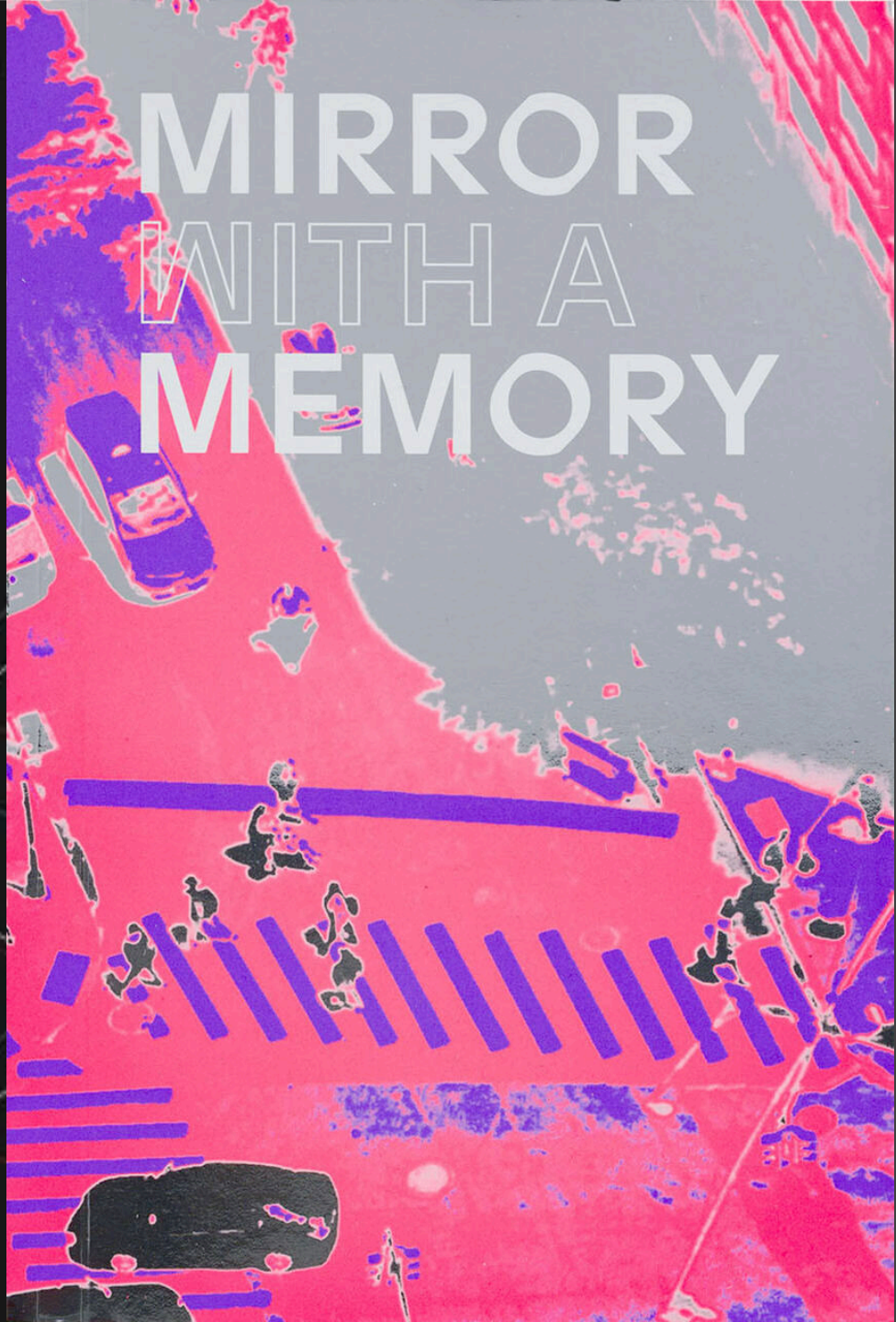from MEDIEVAL ROBOTS to NEURAL NETWORKS

ARTIFICIAL INTELLIGENCE

AN ILLUSTRATED HISTORY

CLIFFORD A. PICKOVER

MIRROR WITH A MEMORY

Art & Artificial Intelligence Links

- http://annaridler.com/works (fall of the House of Usher)
- https://www.stephaniedinkins.com/projects.html
- https://deyoung.famsf.org/exhibitions/uncanny-valley
- https://simondenny.net/
- https://sofiacrespo.com/
- http://tegabrain.com/
- https://sougwen.com/
- Scott Eaton: http://www.aiartonline.com/highlights/scott-eaton/
- http://deweyhagborg.com/ (chelsea manning)
- https://www.memo.tv/works/distributed-consciousness/ (Dalle-2)
- https://monoskop.org/Neural_aesthetics#2022
- https://sites.google.com/site/digihumanlab/research

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