

# *Deep Learning* and the *Art*

Talk at the

## *AI&Art Pavilion Esch2022*

*Kick-off Meeting, 25 September 2020*

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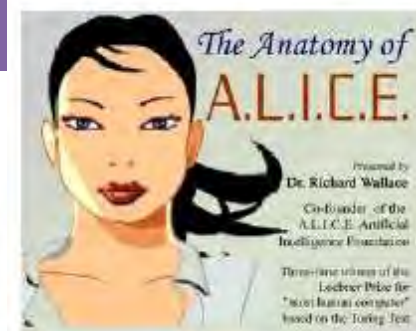
# Course: “Machine Learning“, MICS3, 2019



Many thanks to Jiaqin, Jingjing, Mei, and Ze !!



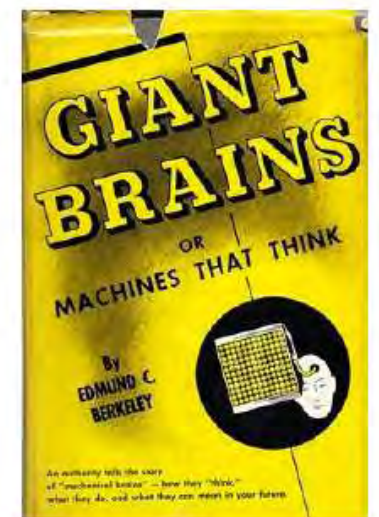
# A.I. History (selection)



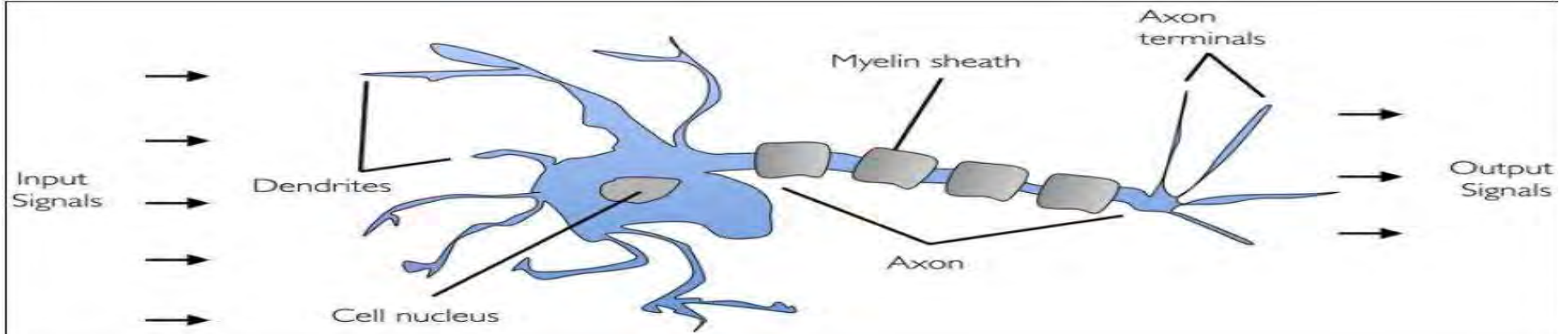
Walter Pitts



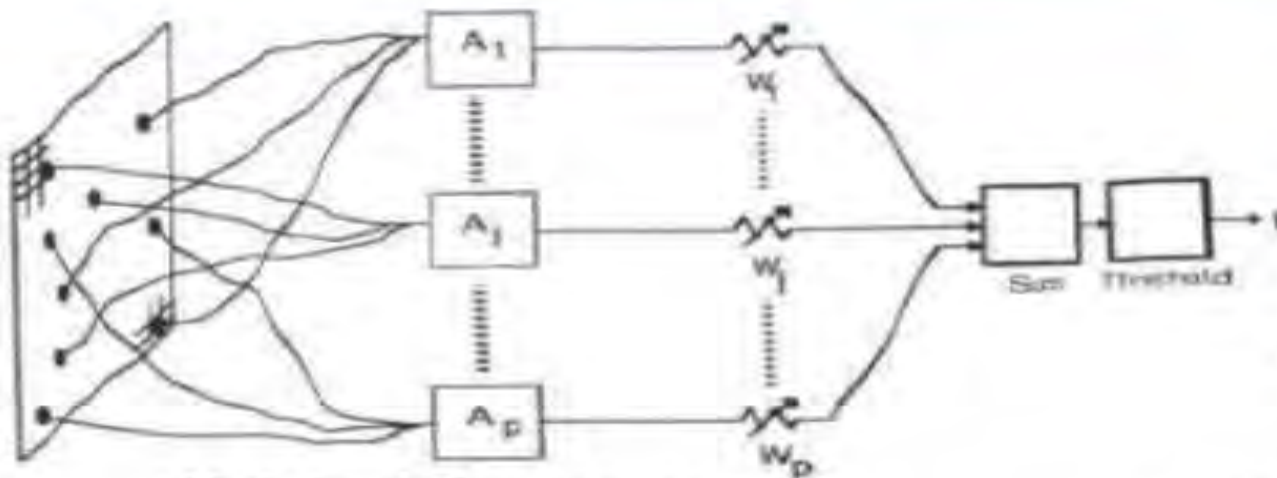
Warren McCulloch



# A.I. History : Artificial Neural Networks



## Perceptron (1957)

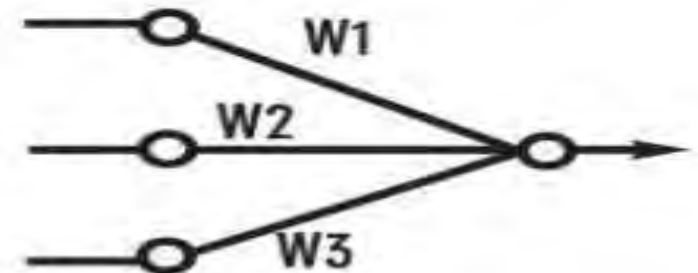


Frank Rosenblatt  
(1928-1971)

### Original Perceptron

(From *Perceptrons* by M. L. Minsky and S. Papert, 1969, Cambridge, MA: MIT Press. Copyright 1969 by MIT Press.)

Simplified model:





# Harold Cohen and AARON, the machine



<https://www.nytimes.com/2016/05/07/arts/design/harold-cohen-a-pioneer-of-computer-generated-art-dies-at-87.html>

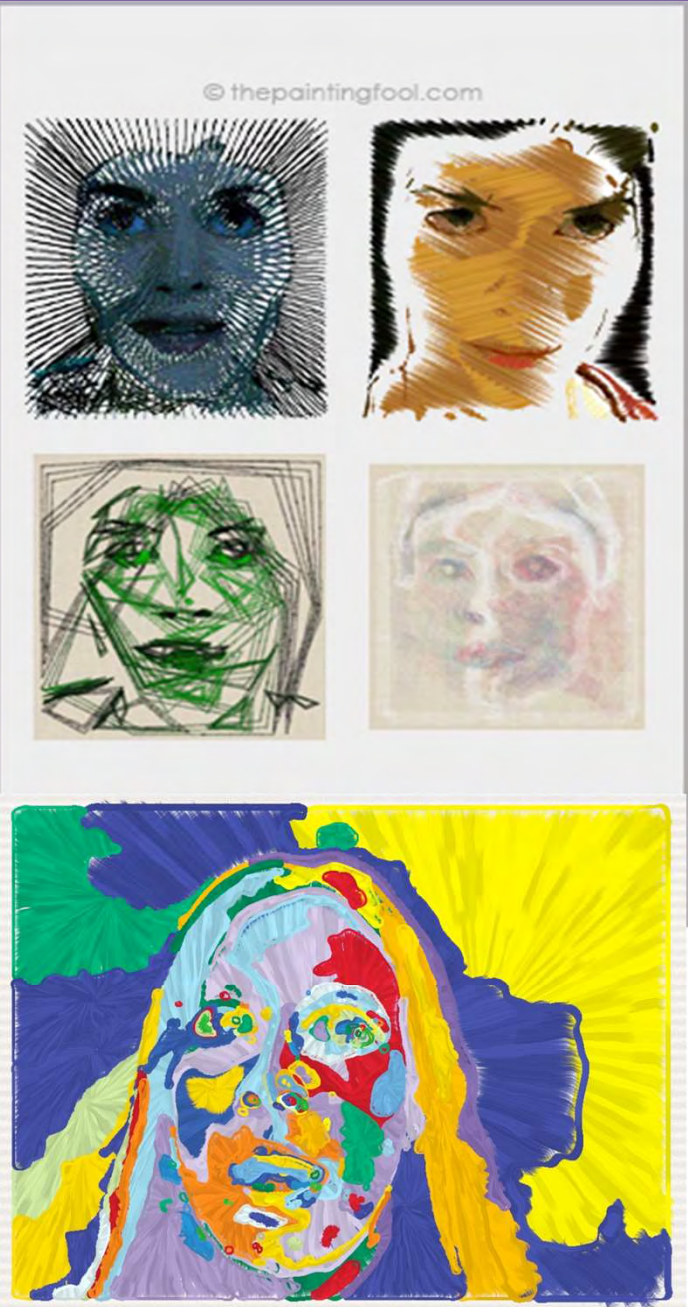


# “The Painting Fool” by Simon Colton

<http://www.thepaintingfool.com/about/>

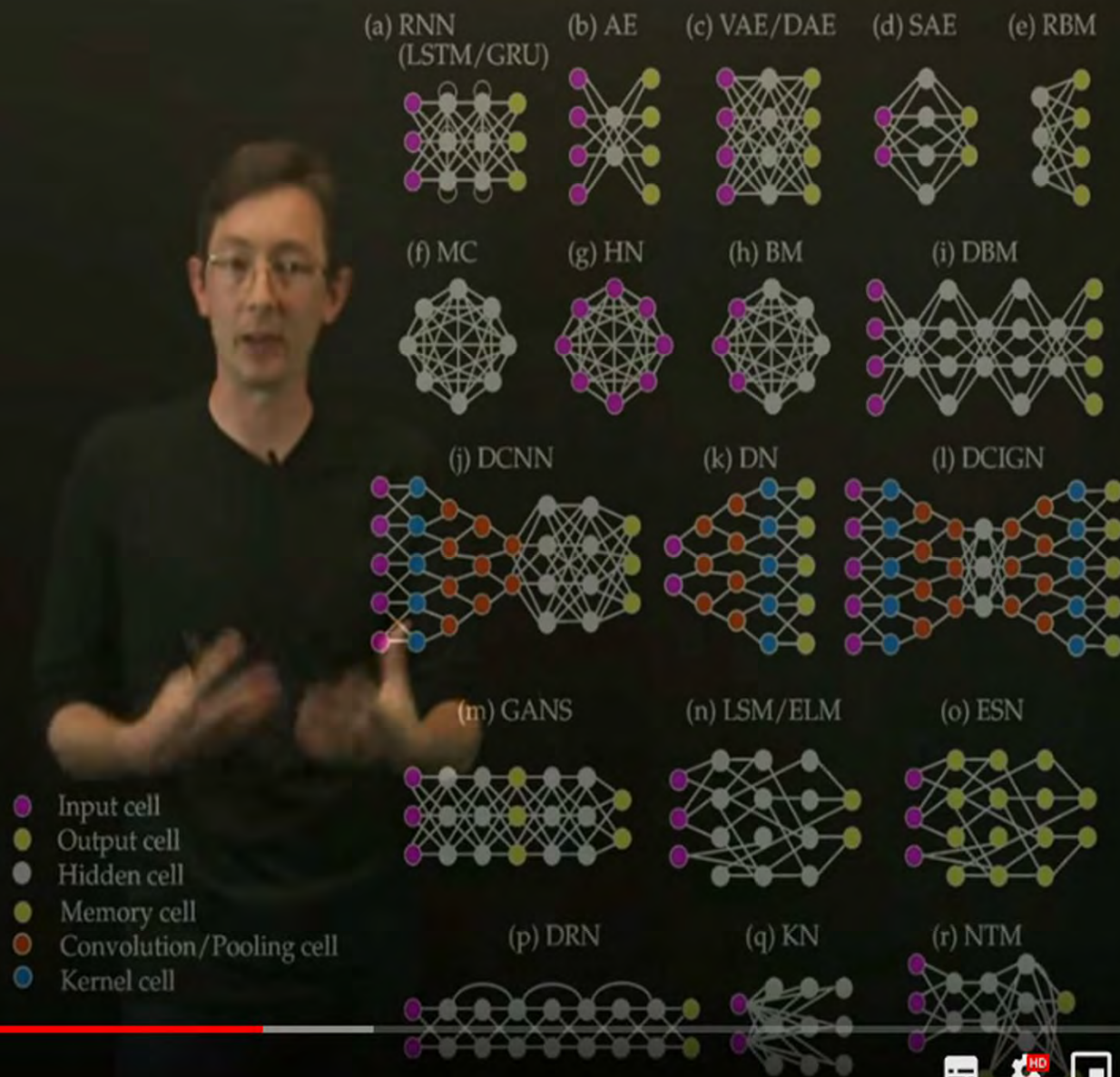


Rather than simply being able to converse in a convincingly human manner (as Turing proposed), an “*artificially intelligent artist would have to behave in ways that were skillful, appreciative, and imaginative*”.





# Deep Learning



3:45 / 9:08

<https://www.youtube.com/embed/oJNHXP0XDk>

Steven Brunton, University of Washington



# Have a Deep Dream!

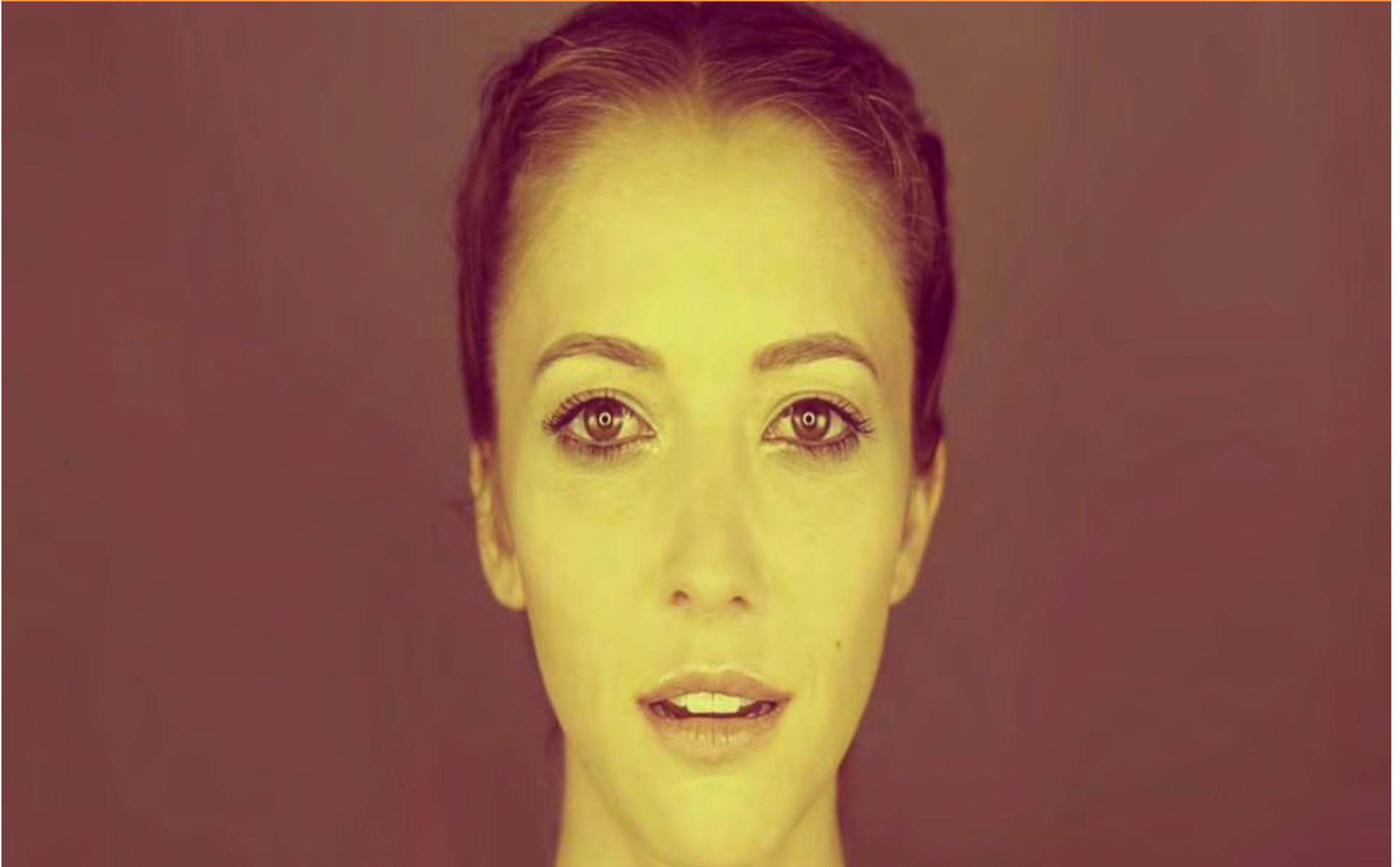


<https://www.youtube.com/embed/l2y6kS7396s>

<https://www.youtube.com/embed/GzF45qSdT6Y>



# **“Break Free” by Taryn Southern, but “Made in AI”**



<https://www.youtube.com/embed/XUs6CznN8pw>

**Break Free - Song Composed with AI | Taryn Southern**



## Jimmy Fallon: singing with Sophia, the robot



<https://www.youtube.com/embed/9Zq4FJXTCqk>



## When AI generated paintings dance to music...



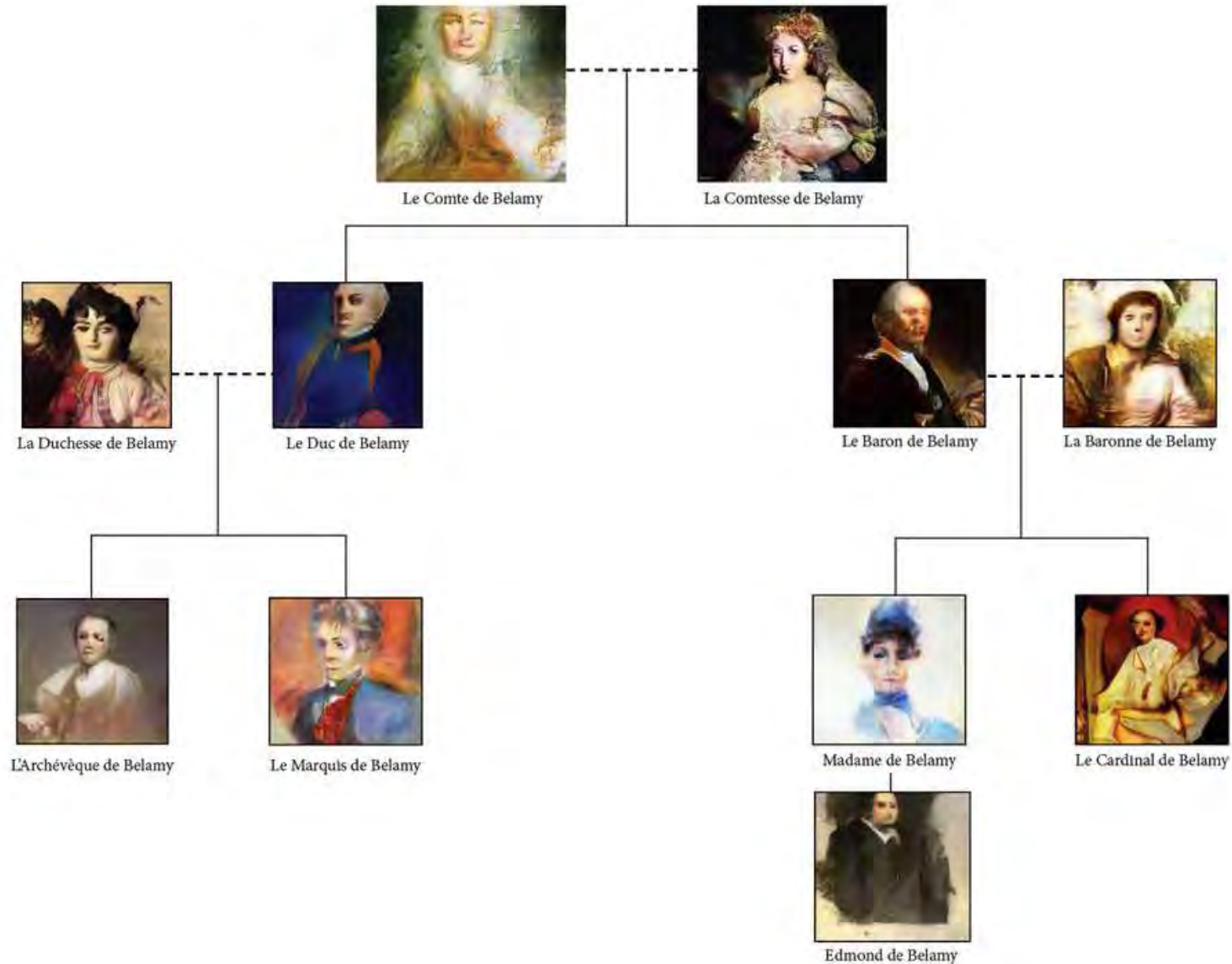
<https://www.youtube.com/embed/85l961MmY8Y> (2min 24sec)

Xander Steenbrugge, Neural Synesthesia



# AI-based Painting

## La Famille de Belamy



# AI-based Painting

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Artist: Obvious

Medium: Ink

Subject: Male portrait

Dimensions: 70cm x 70cm

LOT 363

*Edmond de Belamy, from La Famille de Belamy*

Price realised ⓘ

USD 432,500

Estimate ⓘ

USD 7,000 - USD 10,000

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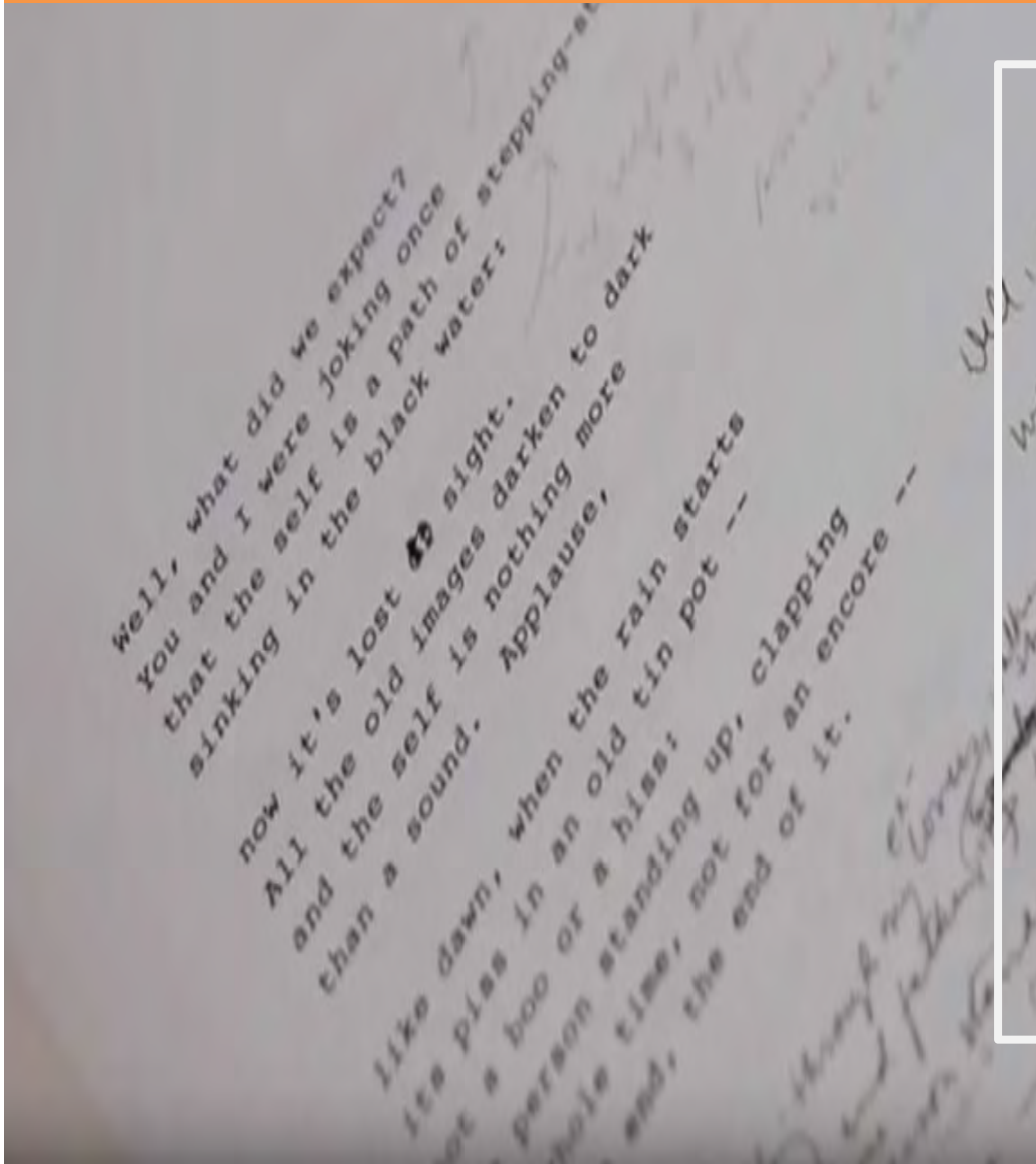


# AI and Deep Fakes

Source: futurezone.at



# Can AI write poetry?



*I wanna be a little kid again.  
I'm feeling kinda empty on the low.  
You should unwind a little now and then.  
Team Stacie looking like a sleepy hoe.*

*Back to the Sunshine State. The devil is  
a lie. I hate myself a lot sometimes,  
I mean, possessive, holy shit, this is  
the second time. I'm always catching dimes.*

*I'm not the only one, I'm pinning this  
again. I love a windy sunny day.  
Not coming out until tonight. I miss  
the happy me. I gotta find a way.*

*I always fall into the bullshit. Why?  
Socks on in bed—the devil is a lie.*

- <https://www.youtube.com/embed/WGt8MkeGpNA> 4min 55 sec
- <https://www.newyorker.com/culture/annals-of-inquiry/the-mechanical-muse>



# Google Arts & Culture: Serpentine Summer Party

(organised by Es Devlin)

<https://www.youtube.com/embed/e-NUHlqmgUI>



<https://www.youtube.com/embed/RVyh1ewep84>

# Performing Arts

with Mutaurya  
Mapondera, Google  
Creative Lab

<https://experiments.withgoogle.com/billtjonesai>

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SUBMIT EXPERIMENT

## Body, Movement, Language: AI Sketches With Bill T. Jones

May 2019 | By Bill T. Jones & Google Creative Lab

PoseNet experiments made in collaboration with one of America's most celebrated and important artists.

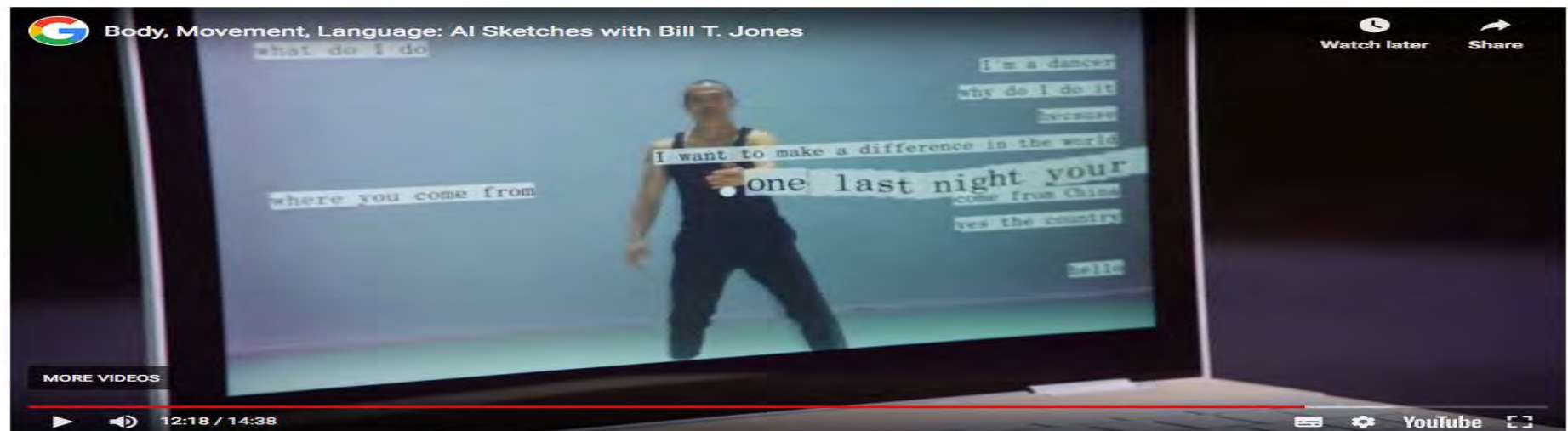
COLLECTIONS:

AI Experiments

Start With One

LAUNCH EXPERIMENT

GET THE CODE





# Charisma.ai

<https://charisma.ai/projects>

The banner features a comic book-style illustration of a man and a woman in a car. The man is in the driver's seat, looking forward, while the woman is in the passenger seat, looking at him. The background is dark and moody. Overlaid on the right side is a smartphone screen displaying an interactive story interface. The interface shows a character named Kevin asking, "Which way did I say to go, left or right?" and a response bubble saying "Take a left!". Below the response is a keyboard with a "Yes" button highlighted. The Charisma.ai logo is in the top left corner of the banner, and the text "charisma Storytelling Reborn" is in the center. Below this is the tagline "Interactive stories where your choices matter" and a "Get the app" button. The top navigation bar includes links for "About", "Blog", "Get in touch", "Docs", "App", "Create stories", and "Login".

charisma.ai

About Blog Get in touch Docs App

Create stories Login

charisma

Storytelling  
Reborn

Interactive stories where your choices matter

Get the app

KEVIN

Which way did I say to go, left or right?

Take a left!

Yes Hi

1 2 3 4 5 6 7 8 9 0

- / : ; ( ) £ & @ "

# += . , ? ! ' 'x

ABC space return

# AIVA

<https://www.youtube.com/embed/wYb3Wimn01s>



Aiva Op. 3

Piano

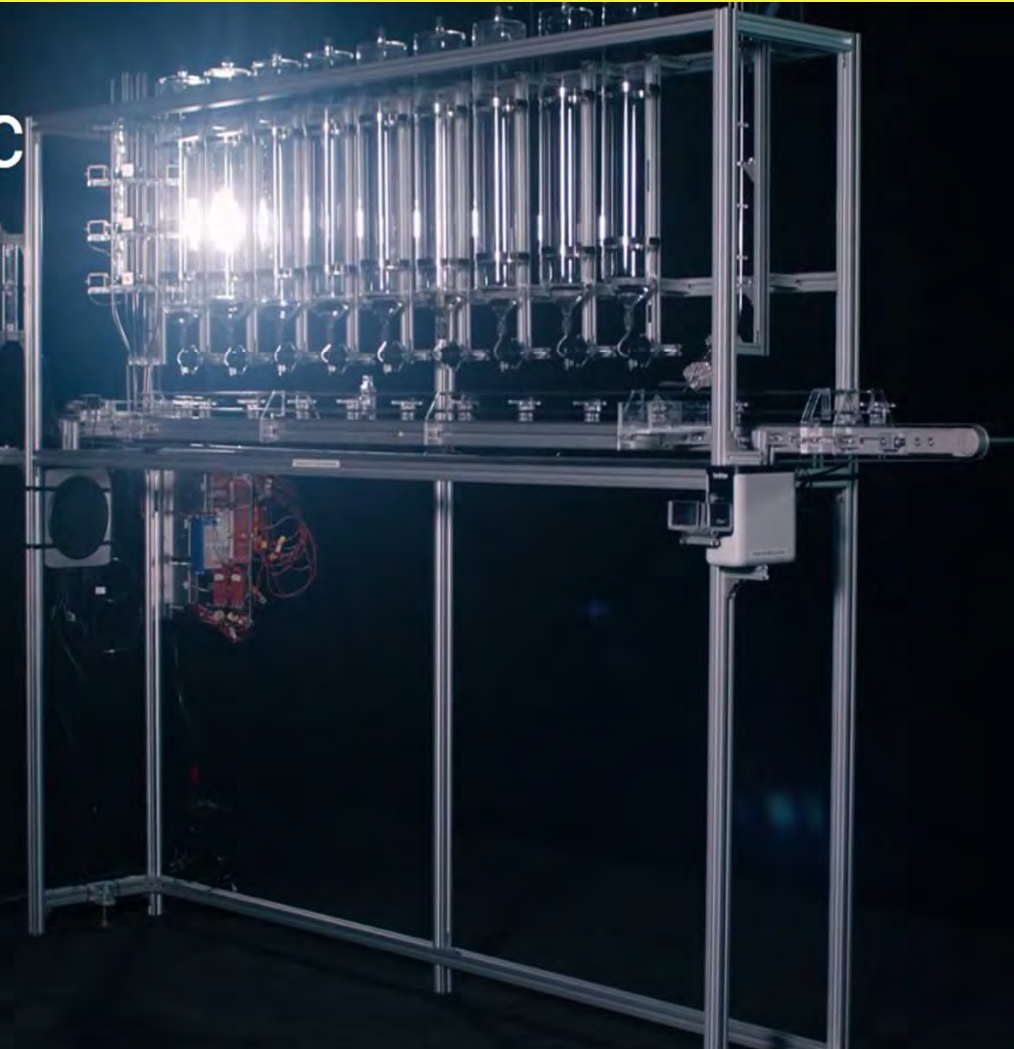
This is the preview of the score Op. n°3 for piano solo  
"A little chamber music", composed by AIVA.



# Algorithmic Perfumery

ScenTronix

## Algorithmic Perfumery



[info@scentronix.com](mailto:info@scentronix.com)



Visit our living lab

Ginnekenstraat 61  
4811 JE Breda  
The Netherlands

# The AI Painter

<https://www.instapainting.com/ai-painter>



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## AI Painter

See your photo turned into artwork in seconds!

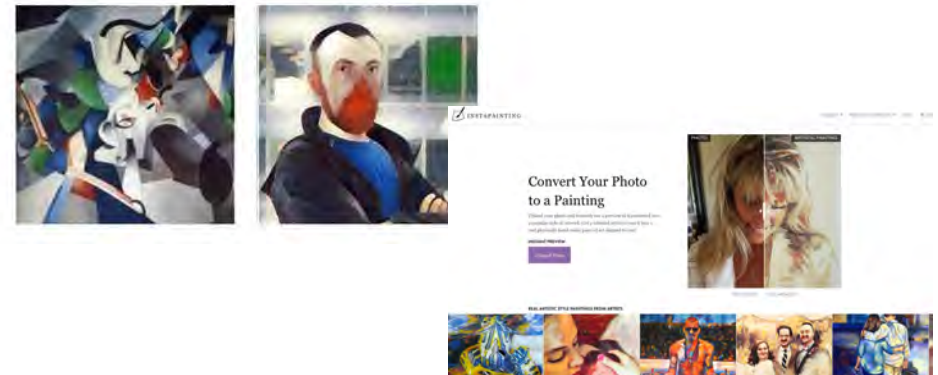
### Neural Network Powered Photo to Painting

Last year we released the first free to use public demo based on the groundbreaking neural style transfer paper—just days after the first one was published!

Now you can preview our next iteration of the state of the art in computational artwork. **Our new tool allows you to see your photo turned into artwork in seconds**, and with just a few more clicks an artist can 100% physically paint it and ship it to your door too.

Our new technology is integrated into our instant artwork preview tool which you can launch below.

Launch AI Painter Artwork Tool







Stephanie Dinkins



Wayne McGregor



Jay Bualamwini



Sofia Crespo



Mimi Onuoha



Memo Akten



Taryn Southern



Ross Goodwin



Sarah Meyohas



Mike Tyka



Tom White



Lauren McCarthy



Pindar Van Arman



Alexander Reben



Jake Elwes



David Young



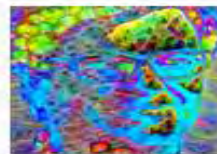
Daniel Ambrosi



Christian "Mia" Locatelli



Dariusz Cross



Gene Kogan



Mario Klingemann



Scott Eaton



Sougwen Chung



Anna Kilder



Robbie Barrat



Ahmed Elgammal



Refik Anadol

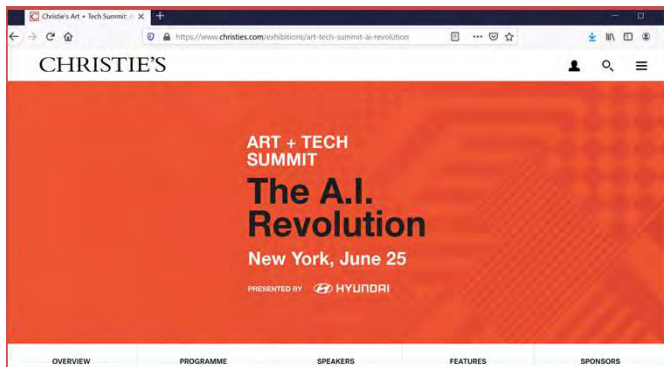
# Community

AIArtists.org

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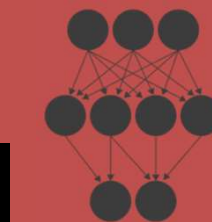
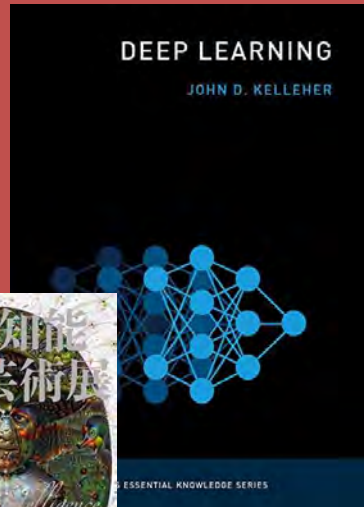
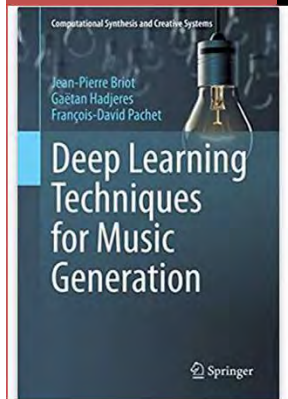
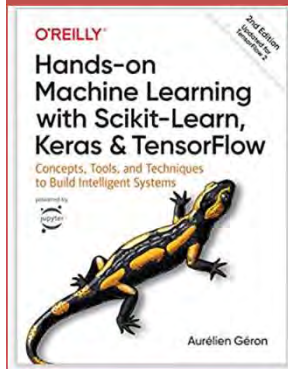


## Join Our Community



# References

<https://topten.ai/ai-painting-generators/>







**Thank you for listening!**