

ASTC 2022

Beyond Science Lessons, Towards Science Experiences

September 12, 2022

MS

+

STUDIO JOSEPH

+

Bluecadet



MIT Museum

OVERVIEW

People Discoveries Values



Hacking Participation Authenticity



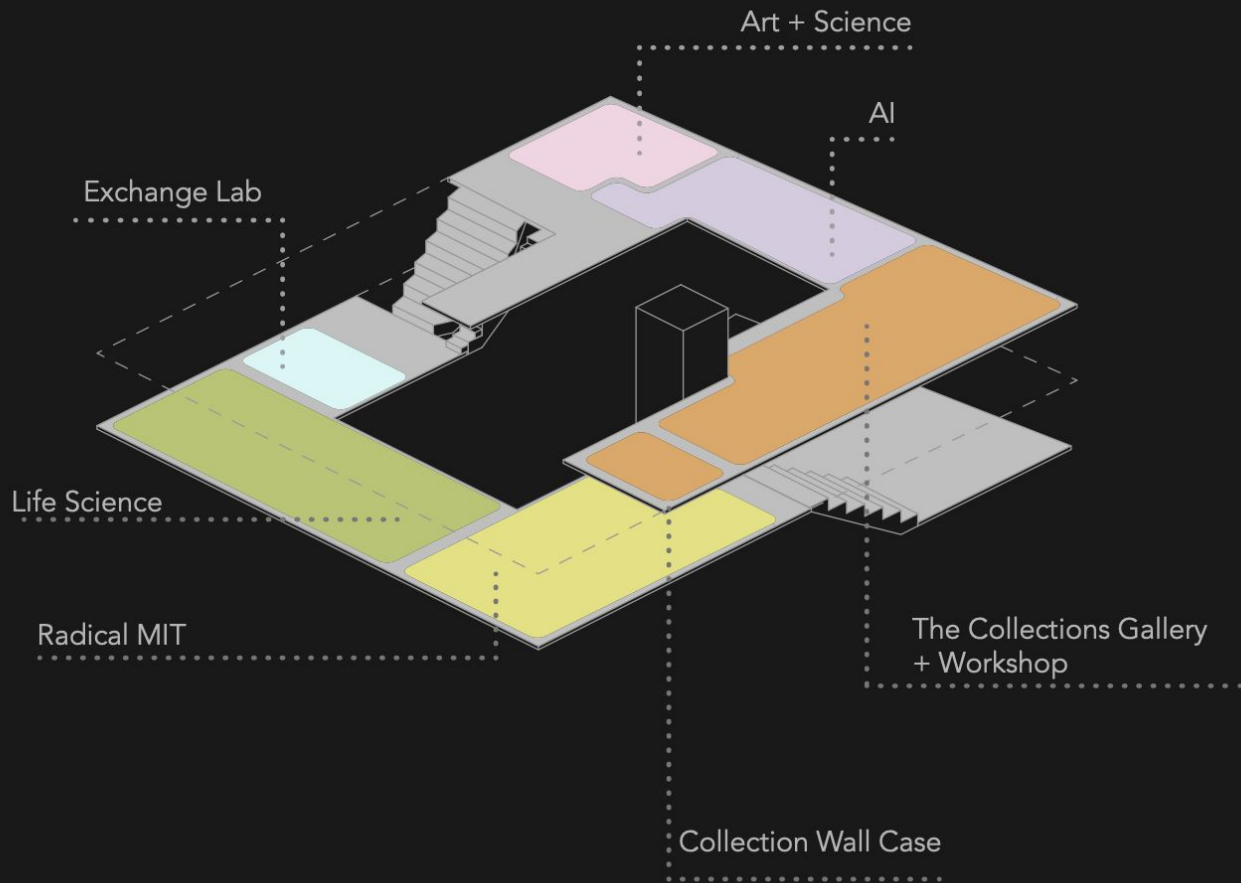


MIT Museum
Temporarily closed



The Link

314 Main St,
Cambridge, MA 02142





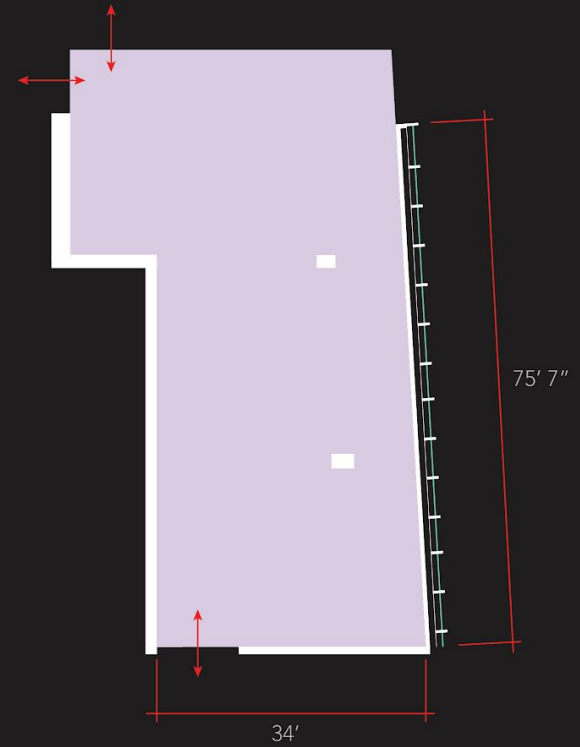
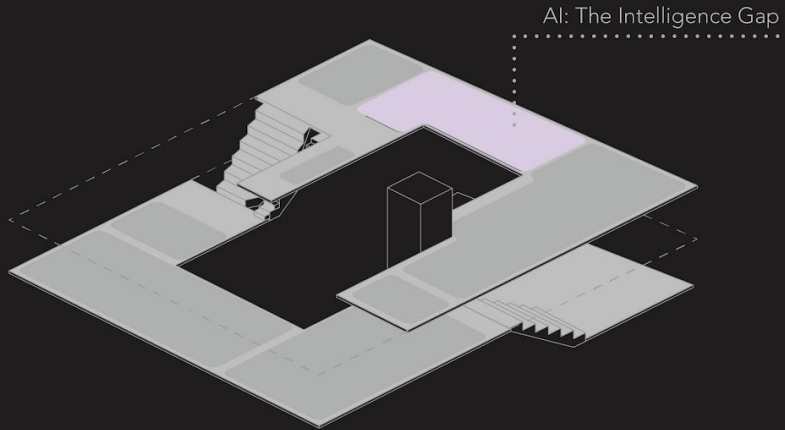
CULTURES

SENSING

ALTERING

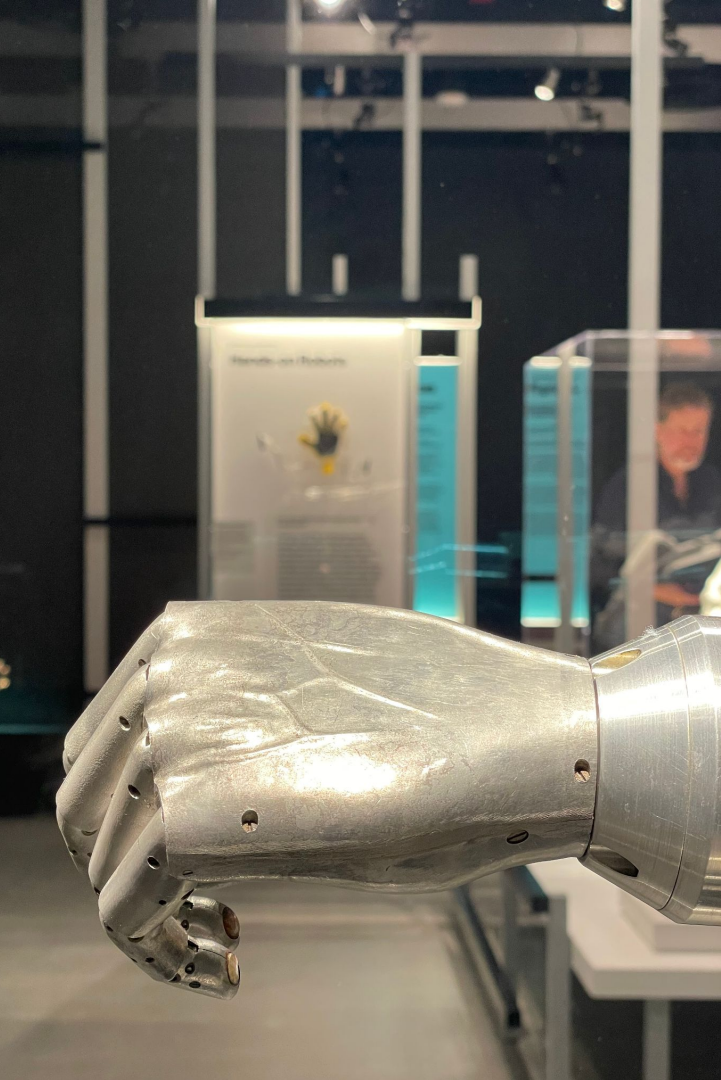




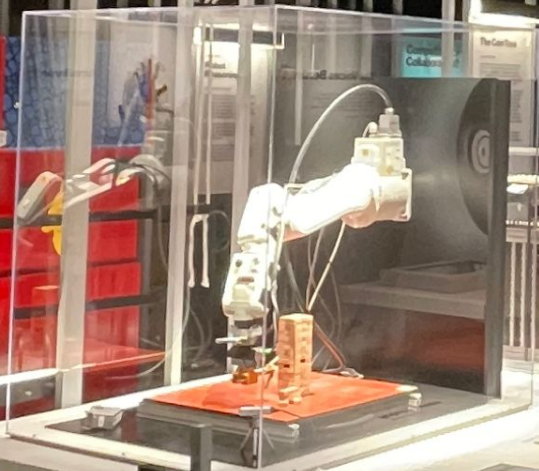


“

The irony of artificial intelligence is that it inspires new perspectives on human intelligence.



Hands-on Robots



Robotic Arm
This robotic arm is designed for precision and speed, capable of performing a wide range of tasks. It is a key component in many industrial and laboratory settings.

The Language of Robotics
Understanding the language of robotics is essential for anyone working in the field. This section explores the various ways in which robots communicate and interact with their environment.



EXIT

“

Make every pixel count.

Black Box

Collaborative Poetry

Black Box

Collaborative Poetry

“

We need to understand what’s happening inside the black box—how neural networks are processing input, and where our lack of understanding affects the output as well as potential bias and inefficiencies.

— Lindsay Bartholomew, MIT Exhibit Developer

neural network

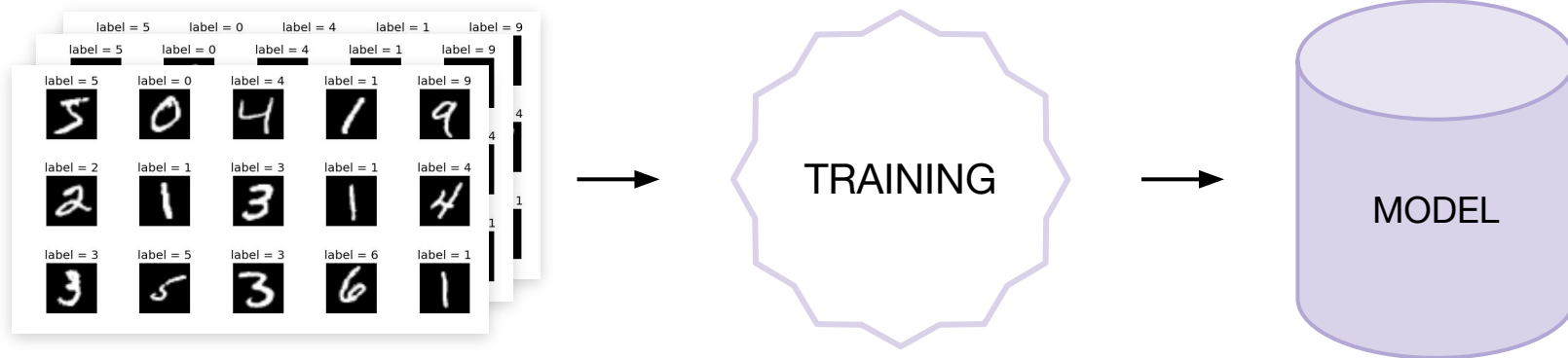
Noun

a computer architecture in which a number of processors are interconnected in a manner suggestive of the connections between neurons in a human brain and which is able to learn by a process of trial and error

- Merriam Webster

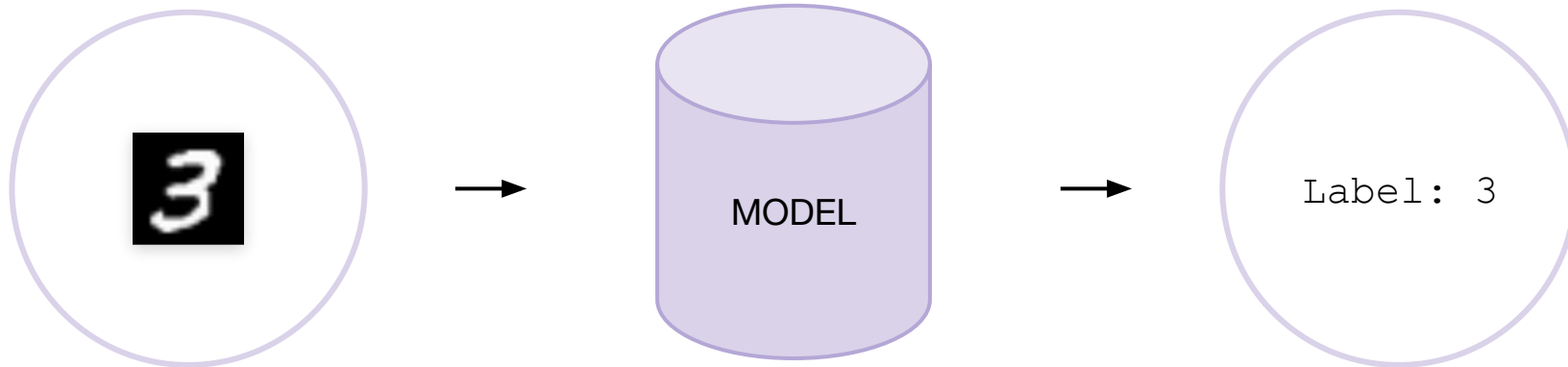
neural network

Training

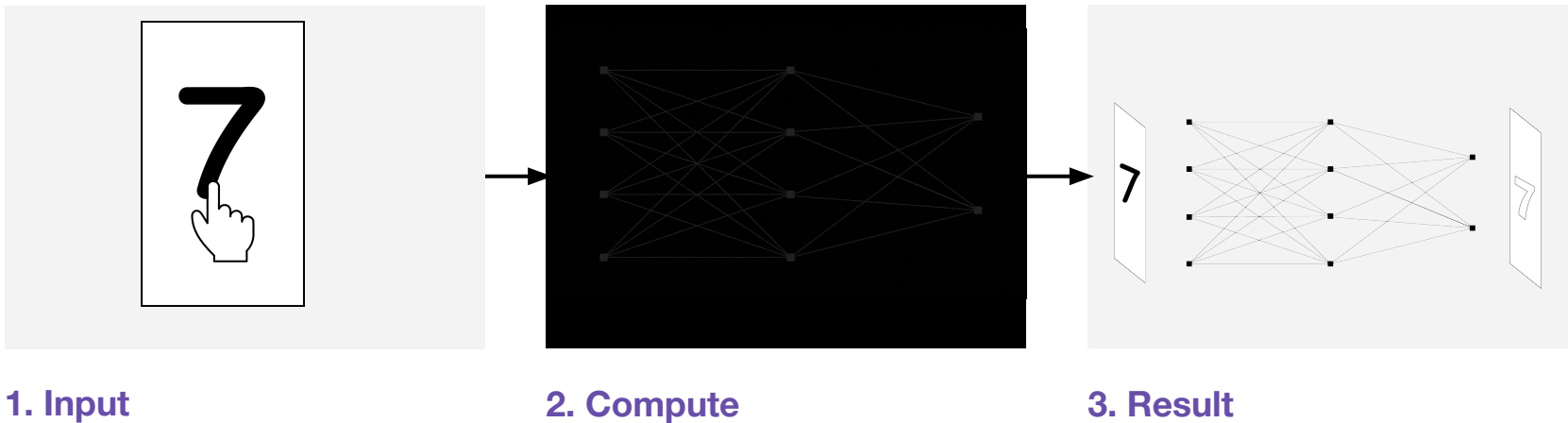


neural network

Processing

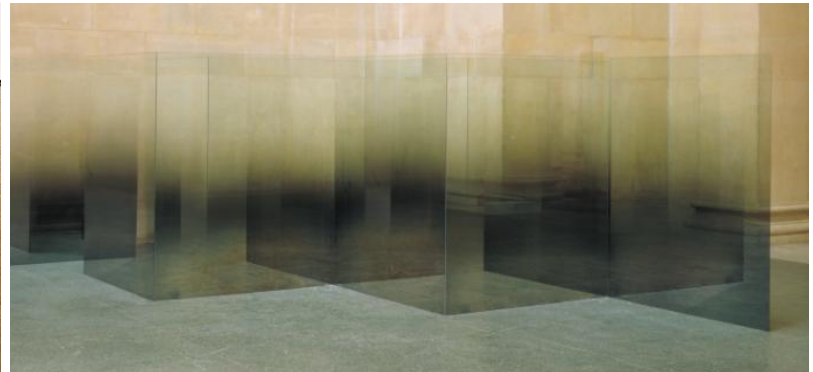


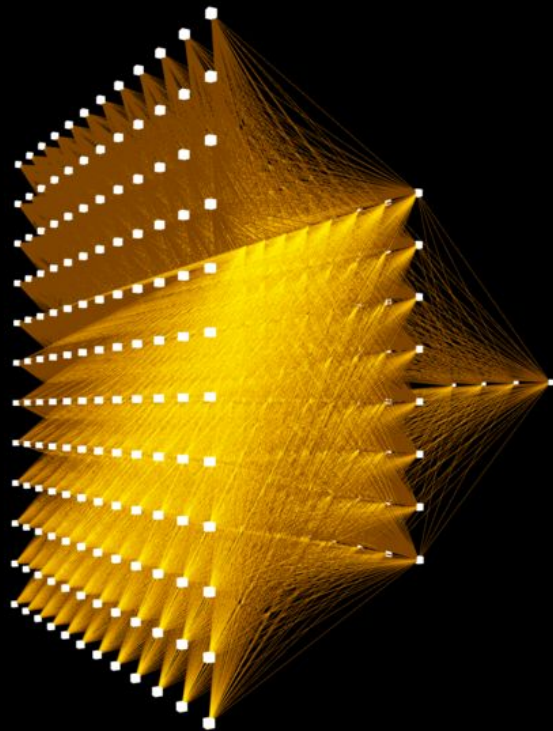
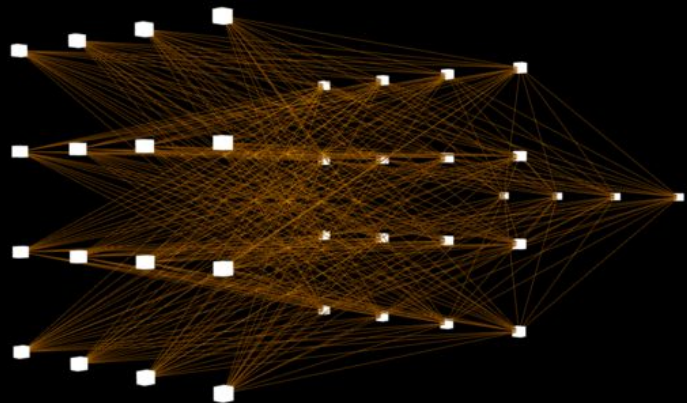
Visitor Experience



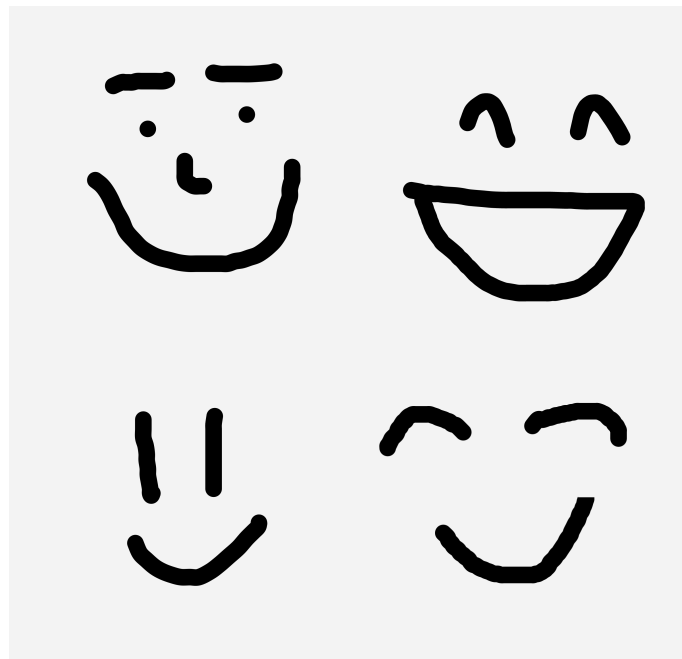
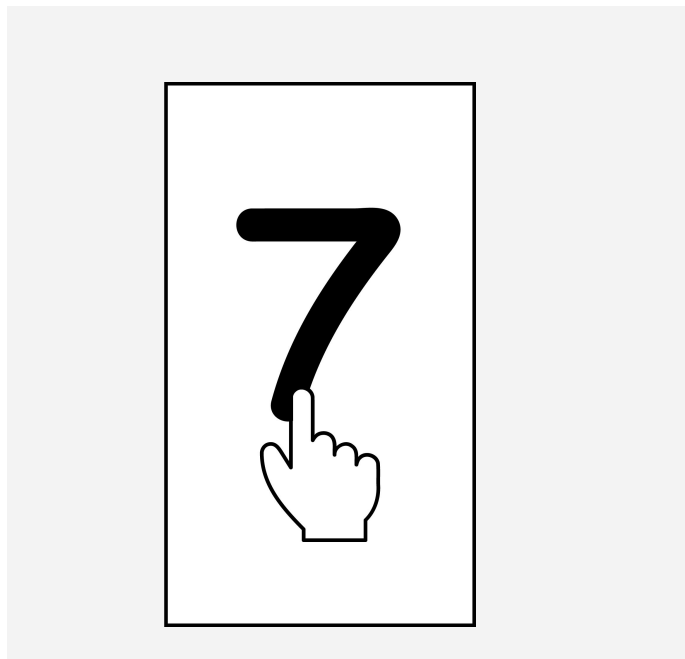
Unveiling the Digital Realm

Initial Thinking - Spatial/Experiential

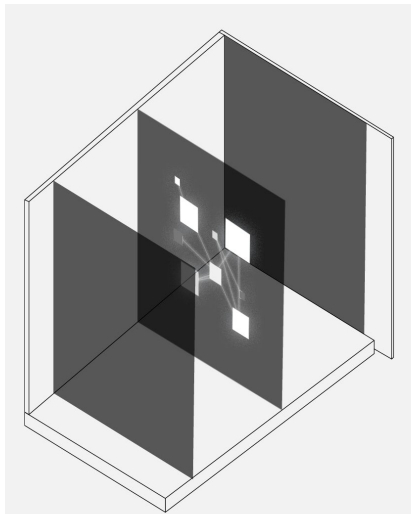




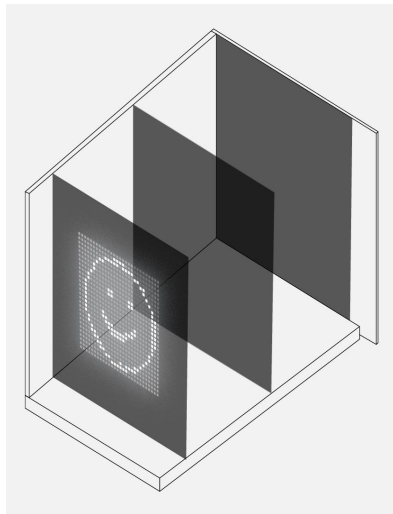
Visitor Experience



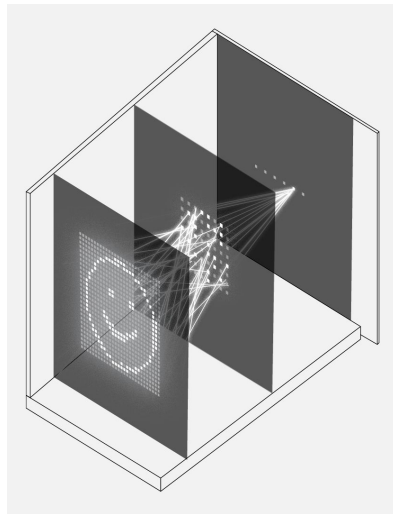
Canvas States



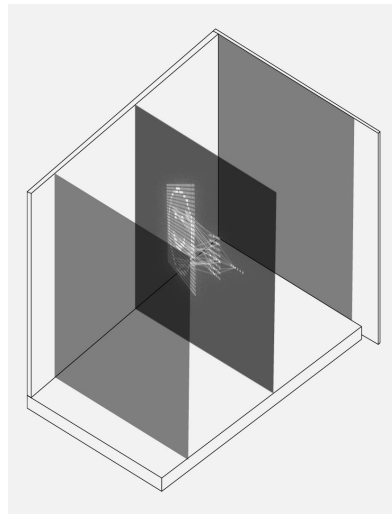
Attract



Input Received



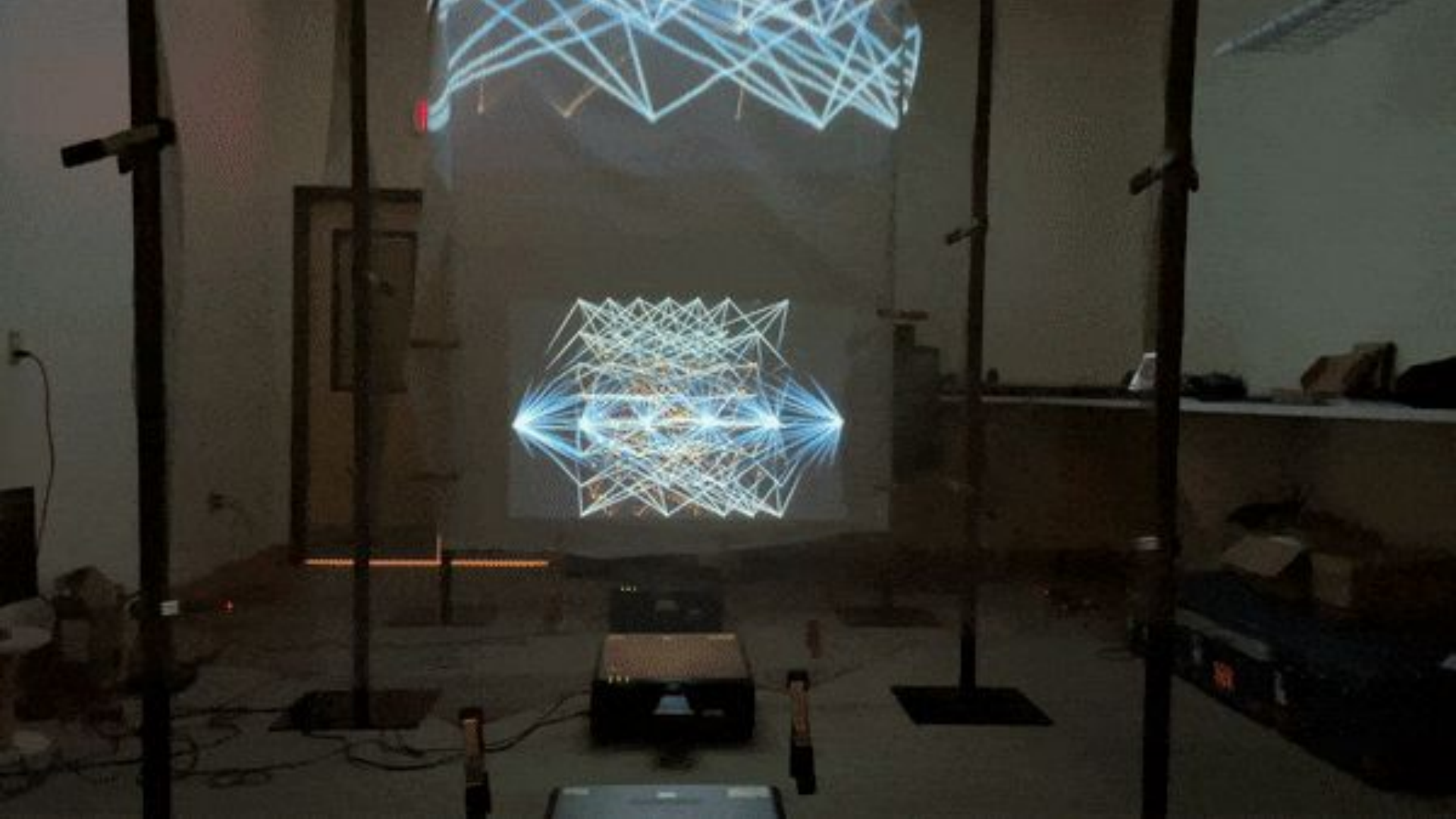
Computing



Result







Hacking the Museum

Visual Affordances



Approach #1

Technical/Functional

A demonstrative tool to show how neural networks work.

Theme: **Programmed and Decisive** or **Onboarding?**

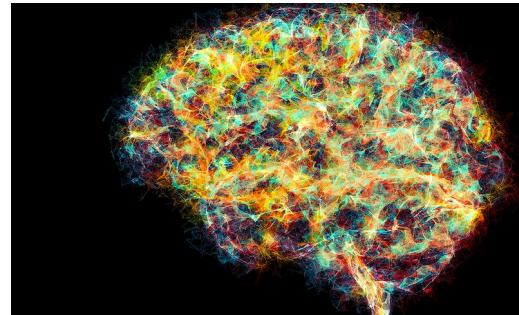


Approach #2

Expressive/Artistic

A beautiful visualization that exposes the inner workings of a neural network in an artistic way.

Theme: **Introduction?**



Approach #3

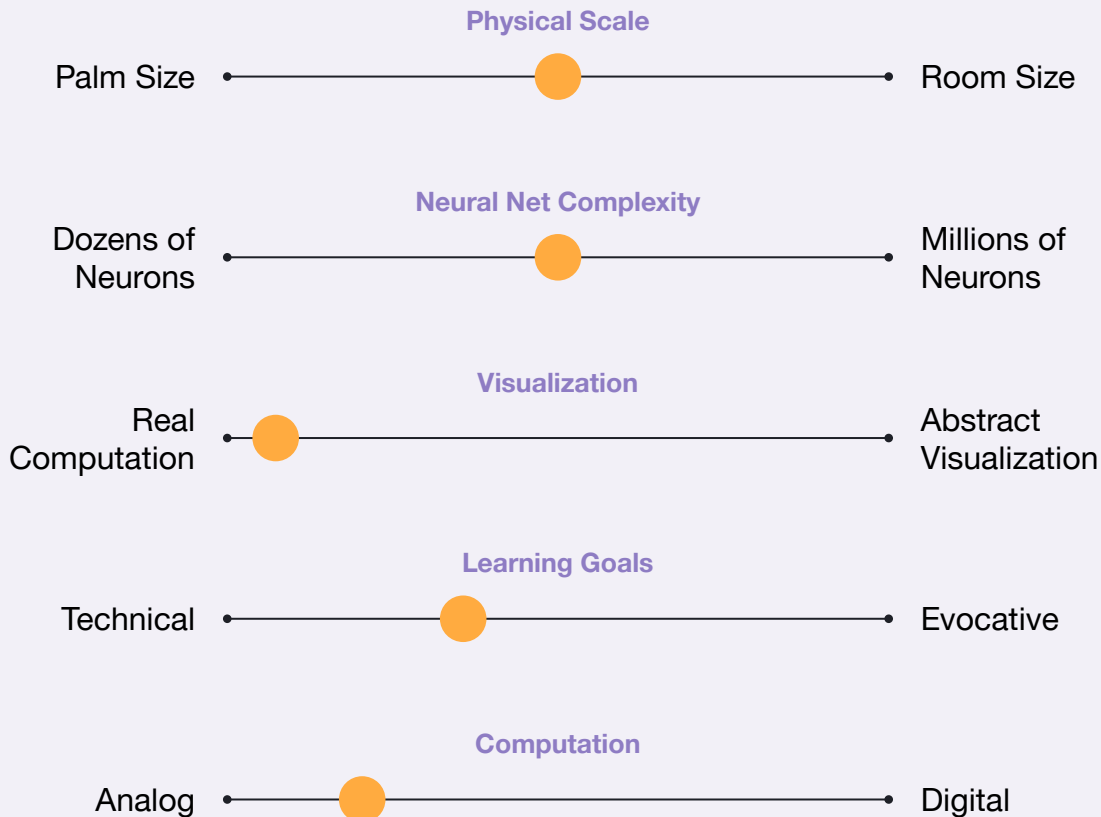
Empathetic/Biological

Bringing a real-life, humanizing tone to neural networks by relating the Blackbox expression to how our own brains process (biases included).

Theme: **Neutral or Partial?**

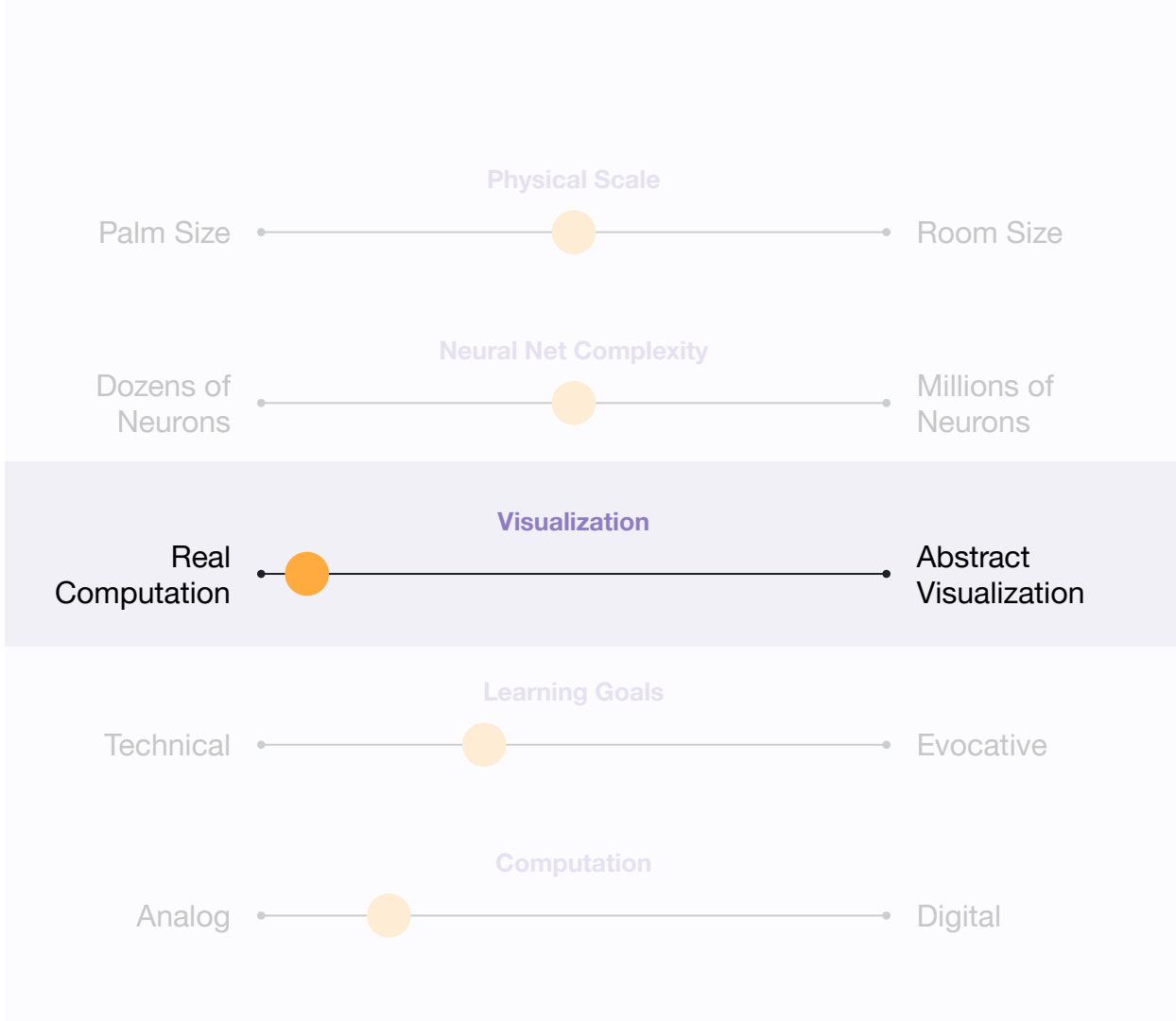
Experience Spectra

How do we want visitors to experience Black Box? What are the spatial and content goals?



Experience Spectra

How do we want visitors to experience Black Box? What are the spatial and content goals?

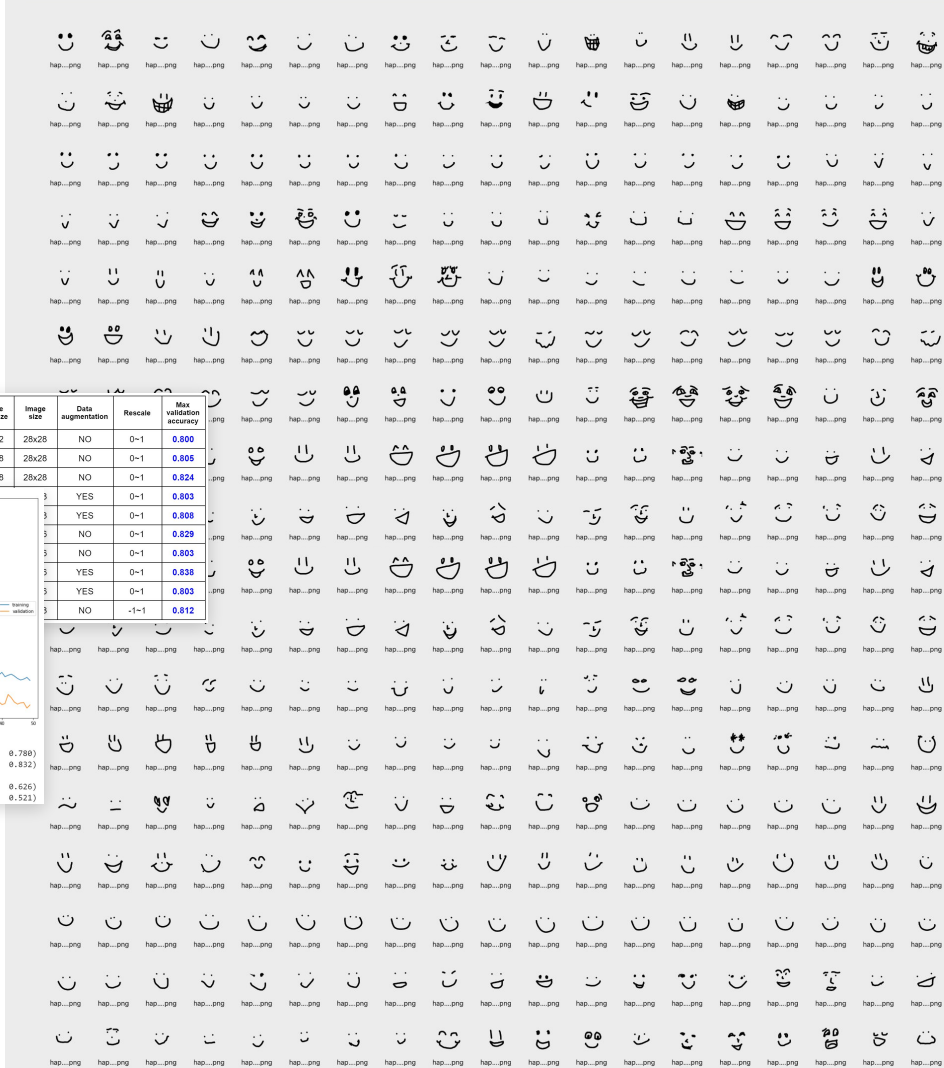
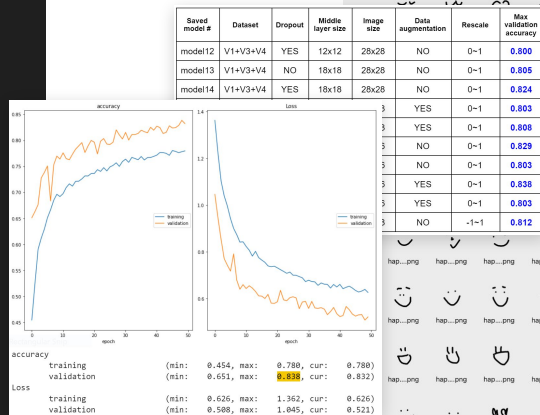
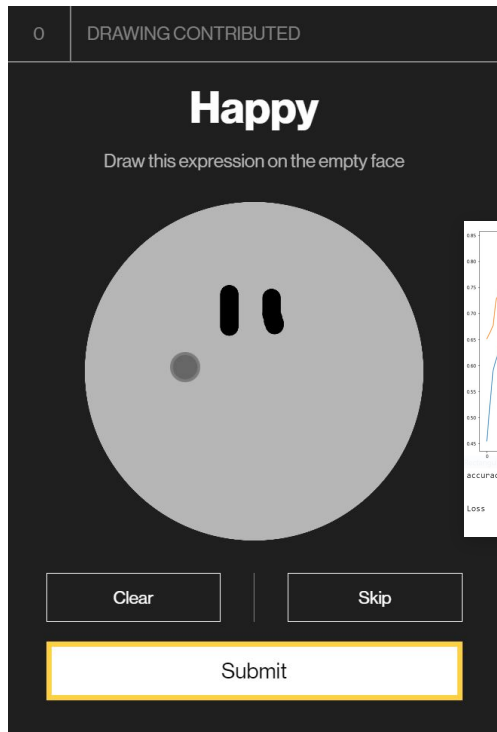


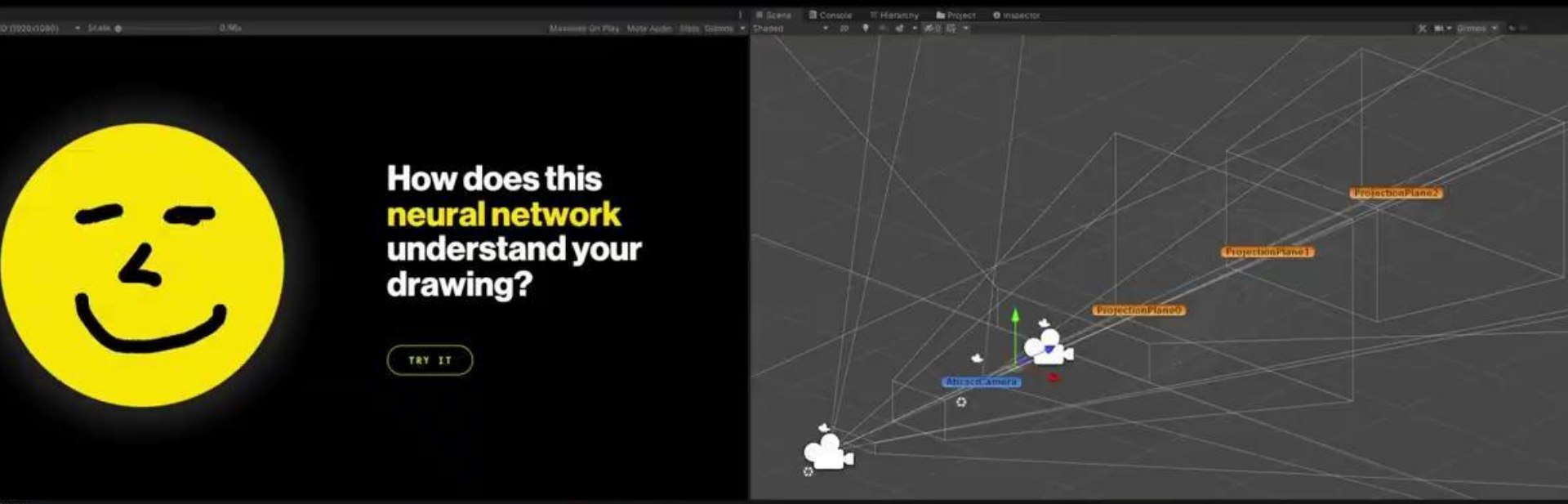
**Can a machine
analyze data ?**



interpret emotion ?

Crowd-Sourced Training

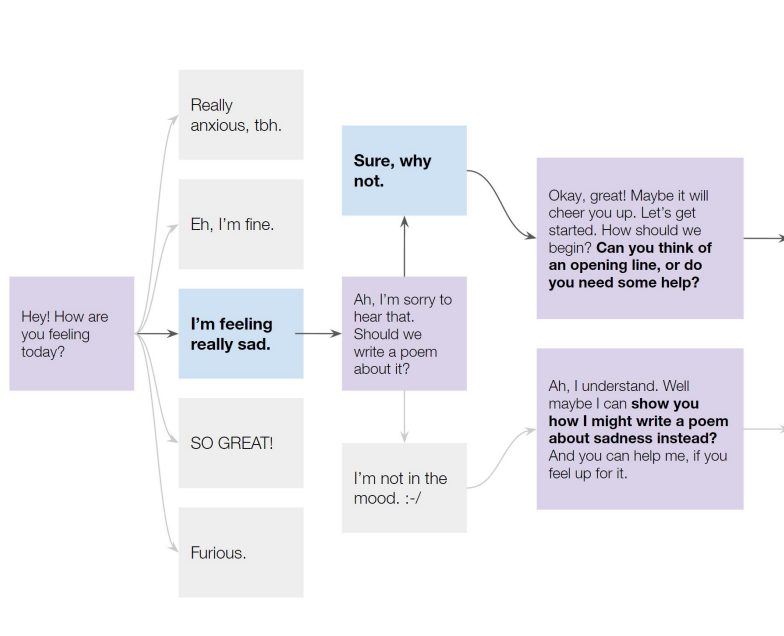




Collaborative Poetry

Writing Together





Complex

Simple

Poem Text

Walking with my love on the beach
Under the radiant and blue ocean

Generate

Retry

GPT-3 Params

Temperature

0.9

Length

A word

A line

A few lines

Number of Options

1

3

Last Prompt for GPT-3

Write a poem about the following subject: A walk on the beach.
Write the poem in the following genre: Ballads. Write the poem in
style of Emily Dickinson. The mood of the poem should be
hopeful. Start without a title.

Walking with my love on the beach

Complex

Simple

Subject

Generate

Mood

Generate



Complex

Simple



Model prompt >>> The bird was dead.



Model prompt >>> The bird was dead.

=====



And the dog lay dead-beaten



Model prompt >>> The bird was dead.

=====



And the dog lay dead-beaten

Upon the path,

And the poor old owl

Came down with a thump

And we heard him cry.

=====

 Model prompt >>> The bird was dead.

=====

 And the dog lay dead-beaten

Upon the path,

And the poor old owl

Came down with a thump

And we heard him cry.

=====

 Model prompt >>> His ghost was tawny
brown

=====

 Model prompt >>> The bird was dead.

=====

 And the dog lay dead-beaten

Upon the path,

And the poor old owl

Came down with a thump

And we heard him cry.

=====

 Model prompt >>> His ghost was tawny
brown

=====

 And there was his bird,

And we heard him call.

=====

 Model prompt >>> The bird was dead.

=====

 And the dog lay dead-beaten

Upon the path,

And the poor old owl

Came down with a thump

And we heard him cry.

=====

 Model prompt >>> His ghost was tawny
brown

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And we heard him call.

=====

 Model prompt >>> The bird was dead.

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 Model prompt >>> The bird was dead.

=====

 And the dog lay dead-beaten
Upon the path,
And the poor old owl
Came down with a thump
And we heard him cry.

=====

 Model prompt >>> His ghost was tawny
brown

=====

 And there was his bird,
And we heard him call.

=====

 Model prompt >>> The bird was dead.

=====

 But the wren took up the wren
And sang--and we heard.
The wren was dead.
And the dog cried out, "You, sir,
You did it."
"I did it," said the man,
"To save you."
The bird he sang to us,
"You did it. You did it."
We thought we heard him.
"You did it. You did it,"

=====



blue and gold

At the foot of the mountain
I can see green and purple
The headwaters of a rushing stream
I can listen to the music
Of leaves rustling in the wind
I can smell the rain and flowers

The kindness that the forest extends
Is a gift we can all appreciate
But before you can know
You must first walk through
The thick canopy of trees

Oftentimes
The whole forest seems to welcome you
As it envelops you
In its soft embrace
Without judgment, without fear
What a lovely experience

Talia D. + AI

The kindness that the forest extends
Is a gift we can all appreciate
But before you can know
You must first walk through
The thick canopy of trees

Oftentimes
The whole forest seems to welcome you
As it envelops you
In its soft embrace
Without judgment, without fear
What a lovely experience

Talia D. + AI

Another poem
completed.

**What are the necessary
ingredients for *any* successful
creative collaboration?**

Poem Generation

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. Neque porro quisquam est, qui doloremque magnam aliquam quaerat voluptatem.

LARKS ON
THE SPRAY
ARE FLYING

BUT THE
SUN WANE
IS IN THE
WEST

NIGHTINGALE
NOW SINGS

THE SWAN IS
BACK, AND THE
NIGHTINGALE,

AND THE GREY
WATER RIPPLES BY.

AND THE LONE-
SOME WANDERER
NOW DOTH HEAR

AI

FAIR FROM THE
DUSMAL GROVE

A LONELY
SWAN FROM
THE SEA
FLIES

WITH THE SUN
ON HIS BREAST

AND THE
CLOUDS

WHEN HE
REACHES
THE FOREST

WITH THE
HAPPY ST

AI

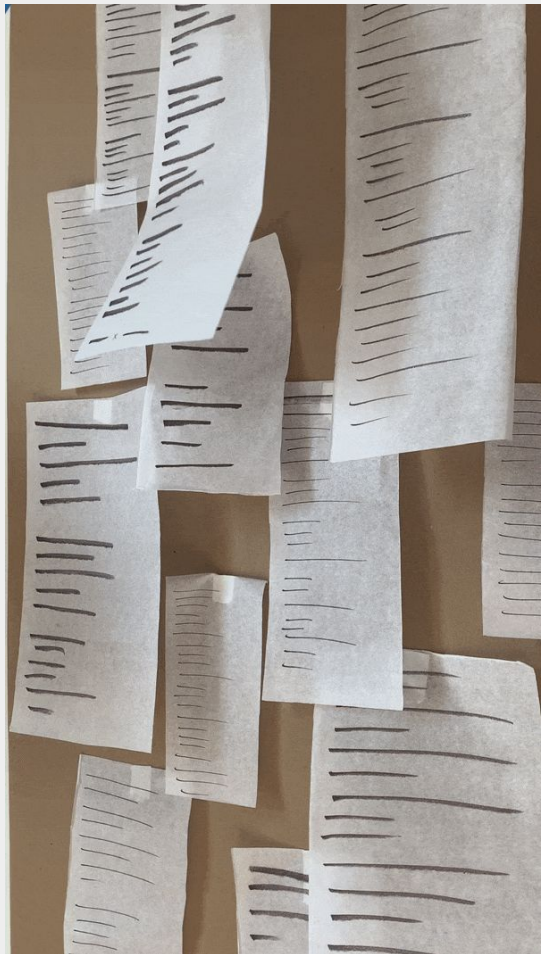
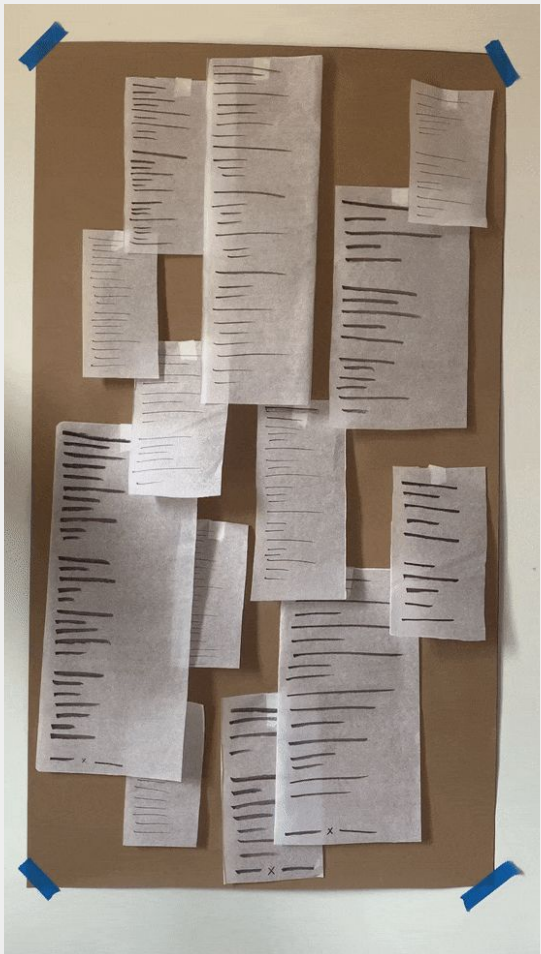
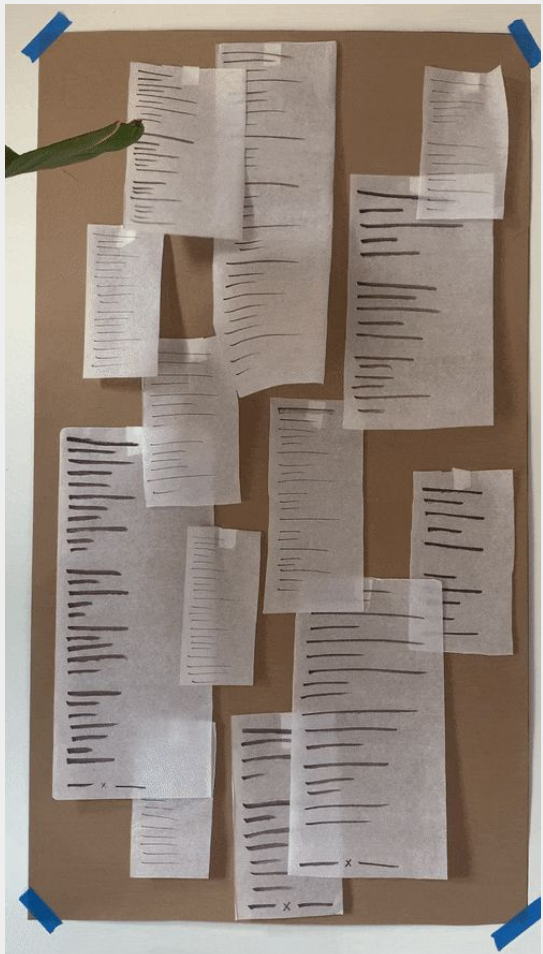
Lorem ipsum dolor sit amet, consectetur
 adipiscing elit, sed diam nonummy nibh
 euismod tincidunt ut laoreet dolore
 magna aliquam erat volutpat. Ut wisi enim
 ad minim veniam, quis nostrud exerci
 tation laoreet ullam corper suscipit
 lobortis nisi ut aliquip ex ea commodo
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 consequat aliquam.

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 consequat, aliquam.

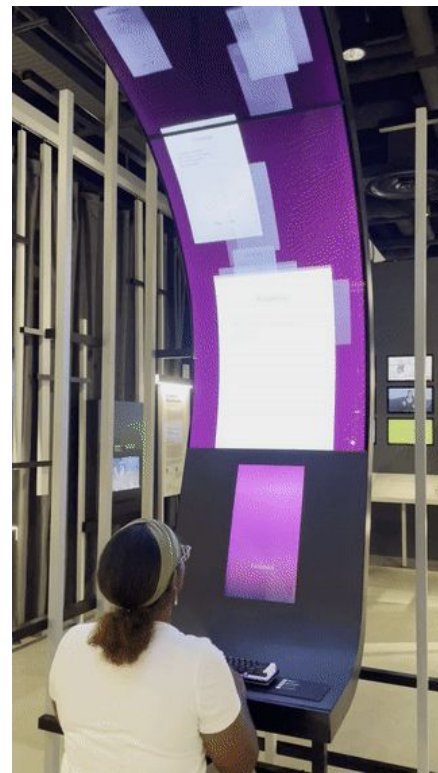
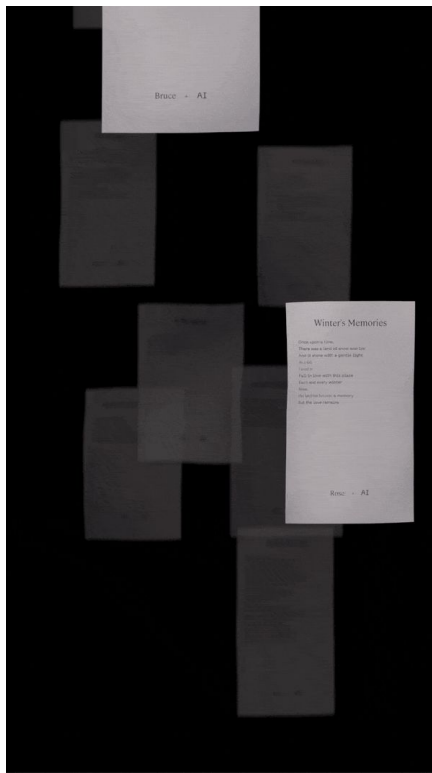
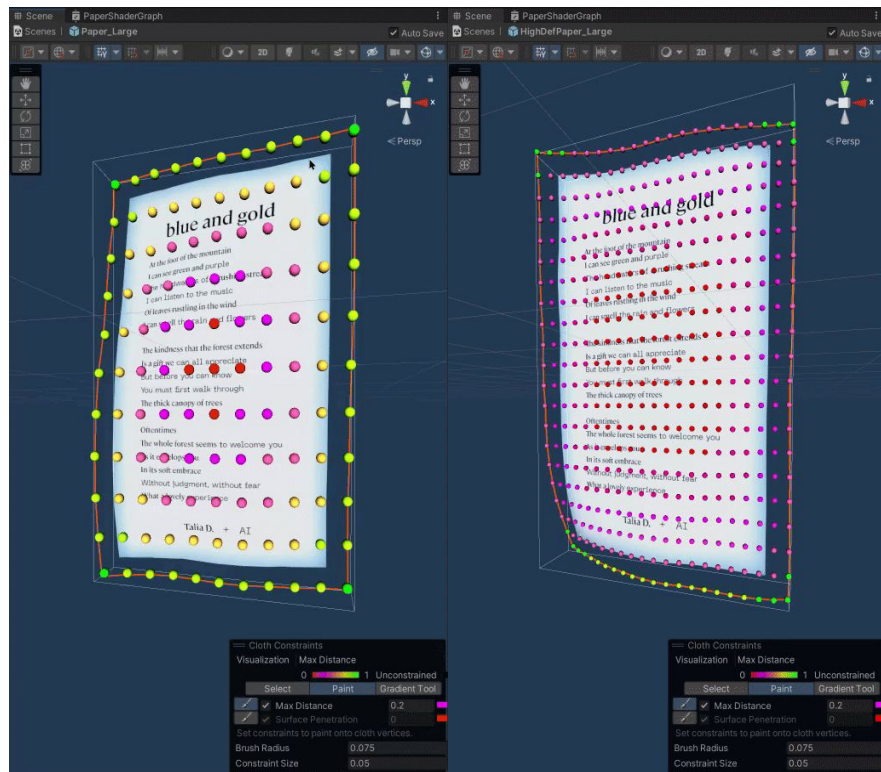
Do you hear
the people sing
THEY ARE SINGING
THE CRY SONG OF THE SEA,
The song of the men
WHO HAVE SAILED AWAY.

There once
was a woman,
SAID THE WIND,
She was a woman
indeed, said the wind,
SHE HAD A WIFE
AND CHILDREN TOO,
But they are all gone now
YET SHE
WANDERS,
And she will
wander
ON AND ON.

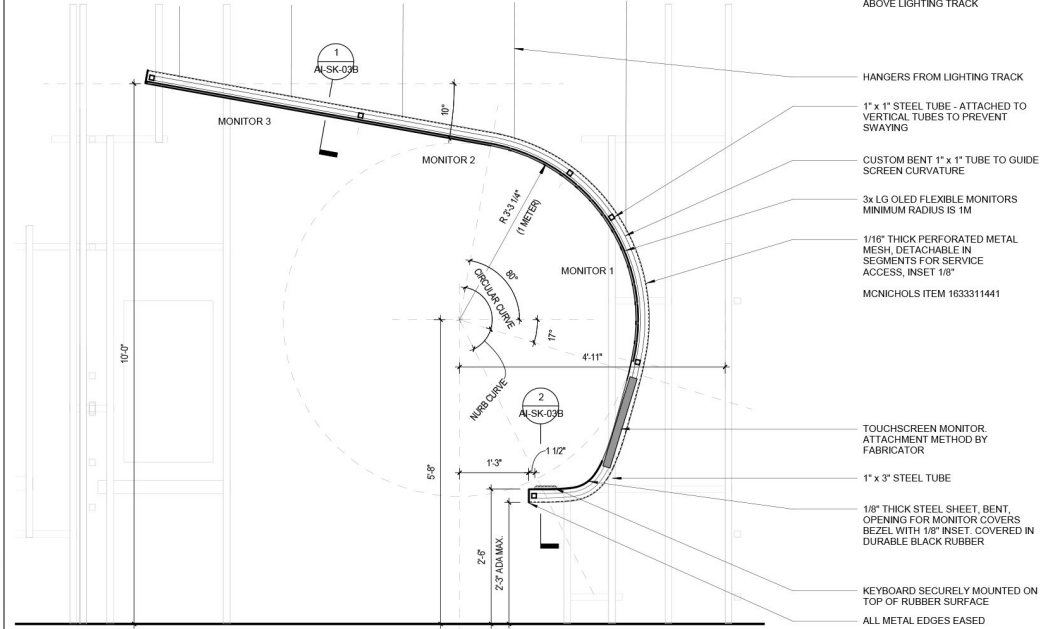
CREATED AT 4:33PM 6/4/2023



3.2 AI: MIND THE GAP | Collaborative Poetry



GENERAL NOTE:
FABRICATOR TO COMMUNICATE IF PROPOSED ADJUSTMENTS HAVE AN
IMPACT ON THE CONTRACTED BUDGET AND APPROVED FABRICATION AND
INSTALLATION SCHEDULE.



1 SECTION DETAIL - CURVED SCREEN INPUT STATION UPDATE
3/4" = 1'-0"

DO NOT SCALE FROM THIS DRAWING - USE NOTED DIMENSIONS ONLY.
ALL DIMENSIONS AND LEVELS SHALL BE VERIFIED ON SITE BEFORE PROCEEDING WITH WORK. THE ARCHITECT MUST BE NOTIFIED OF ANY DISCREPANCY.

Client

MIT MUSEUM EXHIBITS
KENDALL SQUARE SITE 5-E28
314 MAIN STREET,
CAMBRIDGE, MA 02142

Exhibit Designer
STUDIO JOSEPH

500 Park Avenue 16E
New York, NY 10022
T 212.935.3362
www.studiojoseph.com

Date
10/19/2021
11:20:21 PM

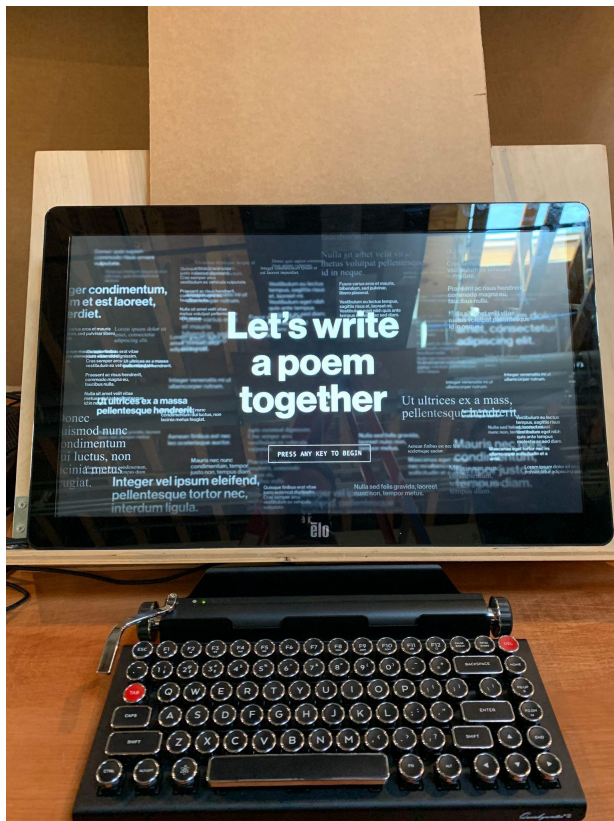
Project No.
2001

Scale
FULL SIZE (11x17) - AS INDICATED
HALF SIZE (8.5x11) - AS INDICATED

Drawing Title
COLLABORATIVE
POETRY UPDATE

Sheet No.
AI-SK-03A









Let's write

A shadow on the

never seen by his

Thank You!

Studio Joseph

*500 Park Avenue - New York, NY 10022
212.935.3392*

Pentagram

*250 Park Ave S. - New York, NY 10003
212.683.7000*

Bluecadet

*1526 Frankford Ave. - Philadelphia, PA 19125
267.639.9956*

Tillotson Design

*40 Worth Street Suite 703 - New York, NY 10013
212.675.7760*