



# CULTURAL AUTOMATION WITH MACHINE LEARNING

## SESSION 04: TEXT GENERATION

Parag K. Mital  
UCLA DMA

# CULTURAL CONTEXT

1910S

Erratum Musical

The image shows a handwritten musical score titled "Erratum Musical". It consists of two systems of music. The first system has three staves: a vocal line with lyrics "Fais une en-pite de mes... que des traits", a piano accompaniment line with lyrics "ne se fi-gure pas que son feu im-pie", and a basso continuo line with lyrics "un son de...". The second system also has three staves with similar lyrics. A decorative horizontal line with a repeating diamond pattern separates the two systems. The notation includes various musical symbols such as clefs, notes, rests, and dynamic markings.

This image shows a handwritten musical score, likely a corrected version of the one on the left. It features three staves of music with lyrics. The notation is more clearly written than in the first image, with some corrections visible. A decorative horizontal line with a repeating diamond pattern is present. The lyrics are partially legible and appear to be the same as in the first image.

[https://www.toutfait.com/issues/issue\\_1/Music/erratum.html](https://www.toutfait.com/issues/issue_1/Music/erratum.html)

1920S

# To Make A Dadaist Poem



Take a newspaper.

Take some scissors.

Choose from this paper an article of the length you want to make your poem.

Cut out the article.

Next carefully cut out each of the words that make up this article and

put them all in a bag.

Shake gently.

Next take out each cutting one after the other.

Copy conscientiously in the order in which they left the bag.

The poem will resemble you.

And there you are — an infinitely original author of charming sensibility

even though unappreciated by the vulgar herd.

<http://www.remixthebook.com/>

1940S



ACTUALITÉS SCIENTIFIQUES ET INDUSTRIELLES



1053

# CYBERNETICS

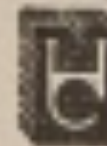
OR

CONTROL AND COMMUNICATION  
IN THE ANIMAL AND THE MACHINE

BY

**NORBERT WIENER**

*Professor of Mathematics at the Massachusetts Institute  
of Technology  
Guest Investigator at the Institut National de Cardologie  
de Blois.*



PARIS

HERMANN & C<sup>o</sup>. EDITEURS

5, Rue de la Sorbonne, 5

THE TECHNOLOGY PRESS  
Cambridge, Mass.

JOHN WILEY & Sons, Inc.  
485 Fourth St., New York



1948





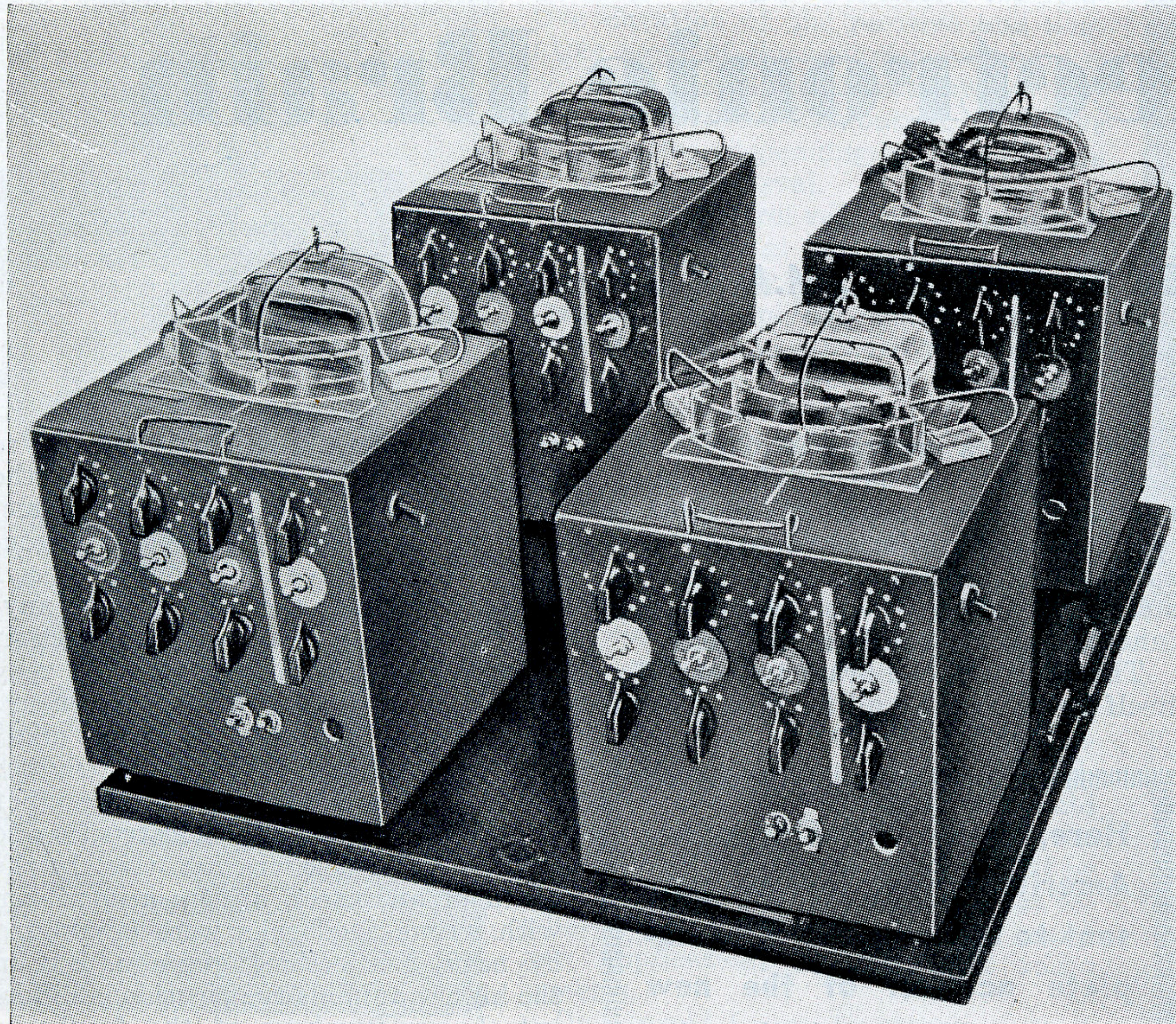


Fig. 1—The homeostat, with its four units, each one of which reacts on all the others.

1950-60S

HONEY DEAR  
EGDQE/ YOU ARE MY AFFECTIONATE HUNGER. MY DEVOTEDATS

DARLING LOVE  
YOU ARE MY AVID FELLOW FEELING. MY AFFECTION CURIOUSLY  
CLINGS TO YOUR PASSIONATE WISH. MY LIKING YEARNS FOR YOUR  
HEART.: MY TENDER LIKING. YOU ARE MY WISTFUL SYMPATHY.  
YOUR

EGD

SATSV

DUCK DUCK

YOU ARE MY LITTLE AFFECTION:  
MY BEAUTIFUL APPETITE: MY EAGER  
HUNGER. MY COVETOUS LOVE LUSTS  
FOR YOUR INFATUATION. MY YEARNING  
ANXIOUSLY CLINGS TO YOUR FELLOW  
FEELING.

YOURS EAGERLY  
M. U. C.

57

104

ACEL.

FRATELLI. FINE.

GRACE NOTES  
LEWISON  
(IN CLIP)

Welcome to

```
EEEEEE LL      IIII ZZZZZZZZ  AAAAA
EE      LL      II      ZZ  AA  AA
EEEEEE LL      II      ZZZ  AAAAAAA
EE      LL      II      ZZ  AA  AA
EEEEEE LLLLLL IIII ZZZZZZZZ AA  AA
```

Eliza is a mock Rogerian psychotherapist.  
The original program was described by Joseph Weizenbaum in 1966.  
This implementation by Norbert Landsteiner 2005.

```
ELIZA: Is something troubling you ?
YOU:   Men are all alike.
ELIZA: What is the connection, do you suppose ?
YOU:   They're always bugging us about something or other.
ELIZA: Can you think of a specific example ?
YOU:   Well, my boyfriend made me come here.
ELIZA: Is it important to you that your boyfriend made you come here ?
YOU:   He says I'm depressed much of the time.
ELIZA: I am sorry to hear that you are depressed.
YOU:   It's true. I am unhappy.
ELIZA: Can you explain what made you unhappy ?
YOU:   █
```

## ELIZA: a very basic Rogerian psychotherapist chatbot

Talk to Eliza by typing your questions and answers in the input box.

> Hello, I am Eliza. I'll be your therapist today.

TYPE HERE

<https://web.njit.edu/~ronkowit/eliza.html>



A HOUSE OF PAPER  
AMONG HIGH MOUNTAINS  
USING NATURAL LIGHT  
INHABITED BY FISHERMEN AND FAMILIES

A HOUSE OF LEAVES  
BY A RIVER  
USING CANDLES  
INHABITED BY PEOPLE SPEAKING MANY LANGUAGES WEARING LITTLE OR NO CLOTH

A HOUSE OF WOOD  
BY AN ABANDONED LAKE  
USING CANDLES  
INHABITED BY PEOPLE FROM MANY WALKS OF LIFE

A HOUSE OF DISCARDED CLOTHING  
AMONG HIGH MOUNTAINS  
USING NATURAL LIGHT  
INHABITED BY LITTLE BOYS

A HOUSE OF DUST  
IN A PLACE WITH BOTH HEAVY RAIN AND BRIGHT SUN  
USING ALL AVAILABLE LIGHTING  
INHABITED BY FRIENDS

A HOUSE OF DUST  
IN A DESERTED CHURCH  
USING ALL AVAILABLE LIGHTING  
INHABITED BY PEOPLE SPEAKING MANY LANGUAGES WEARING LITTLE OR NO CLOTH

A HOUSE OF MUD  
IN AN OVERPOPULATED AREA  
USING ELECTRICITY  
INHABITED BY LITTLE BOYS

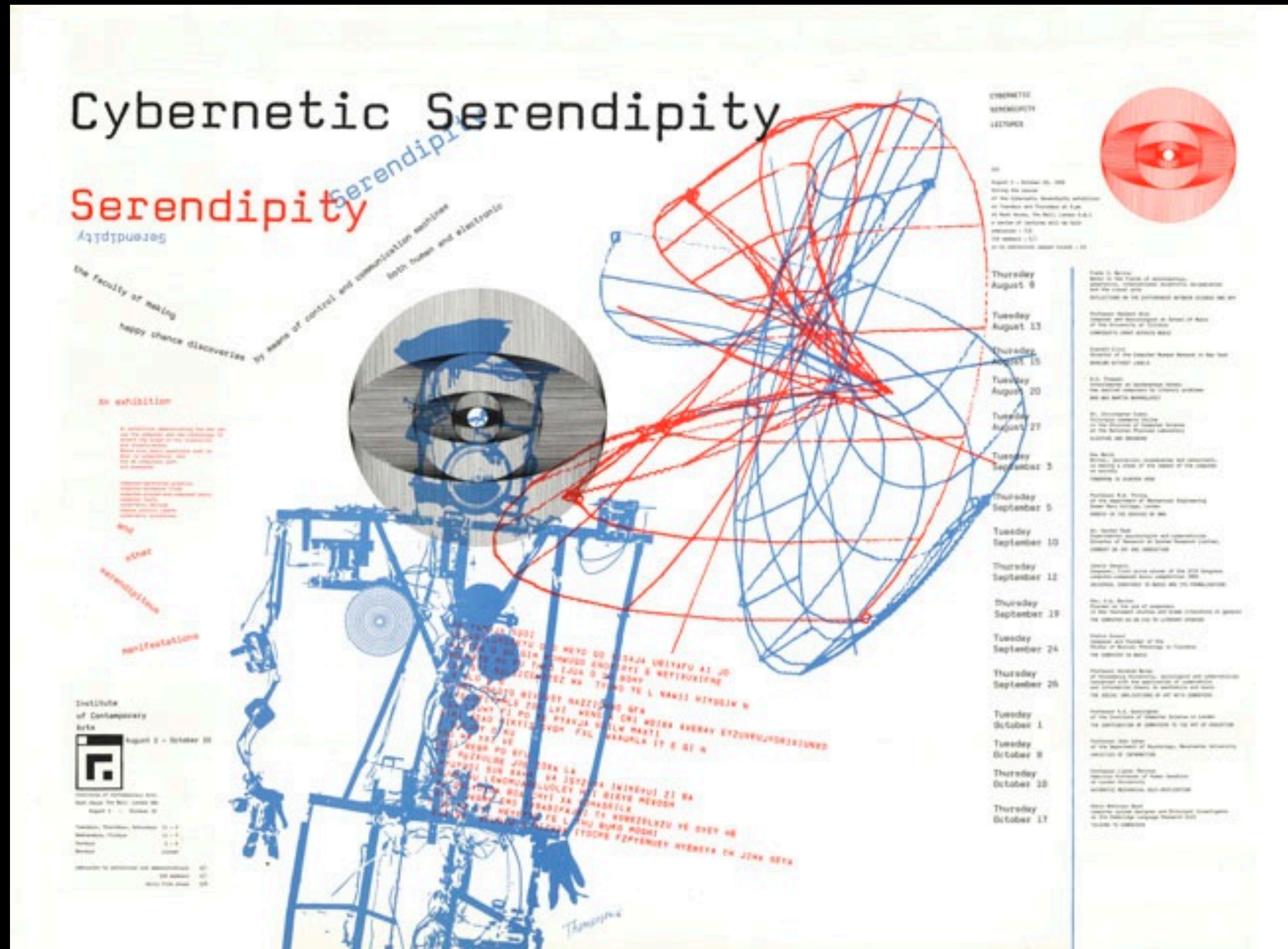
A HOUSE OF WEEDS  
UNDERWATER  
USING CANDLES  
INHABITED BY VARIOUS BIRDS AND FISH

A HOUSE OF BROKEN DISHES  
IN SOUTHERN FRANCE  
USING CANDLES  
INHABITED BY PEOPLE WHO ENJOY EATING TOGETHER

A HOUSE OF ROOTS  
IN A PLACE WITH BOTH HEAVY RAIN AND BRIGHT SUN  
USING ALL AVAILABLE LIGHTING  
INHABITED BY PEOPLE WHO LOVE TO READ

A HOUSE OF STRAW  
IN SOUTHERN FRANCE  
USING NATURAL LIGHT  
INHABITED BY COLLECTORS OF ALIEN SPECIES

<https://www.x-traonline.org/article/objectpoems-alison-knowless-feminist-architexure/>



<https://www.youtube.com/watch?v=oSwovB28B34>

[https://monoskop.org/images/2/25/Reichardt\\_Fasia\\_ed\\_Cybernetic\\_Serendipidity\\_The\\_Computer\\_and\\_the\\_Arts.pdf](https://monoskop.org/images/2/25/Reichardt_Fasia_ed_Cybernetic_Serendipidity_The_Computer_and_the_Arts.pdf)

Cybernetic Serendipity is an international exhibition exploring and demonstrating some of the relationships between technology and creativity.

The idea behind this venture, for which I am grateful to Professor Max Bense of Stuttgart, is to show some of the creative forms engendered by technology. The aim is to present an area of activity which manifests artists' involvement with science, and the scientists' involvement with the arts; also, to show the links between the random systems employed by artists, composers and poets, and those involved with the making and the use of cybernetic devices.

The exhibition is divided into three sections, and these sections are represented in the catalogue in a different order:

1. Computer-generated graphics, computer-animated films, computer-composed and -played music, and computer poems and texts
2. Cybernetic devices as works of art, cybernetic environments, remote-control robots and painting machines
3. Machines demonstrating the uses of computers and an environment dealing with the history of cybernetics.

Cybernetic Serendipity deals with possibilities rather than achievements, and in this sense it is prematurely optimistic. There are no heroic claims to be made because computers have so far neither revolutionized music, nor art, nor poetry, in the same way that they have revolutionized science.

There are two main points which make this exhibition and this catalogue unusual in the contexts in which art exhibitions and catalogues are normally seen. The first is that no visitor to the exhibition, unless he reads all the notes relating to all the works, will know whether he is looking at something made by an artist, engineer, mathematician, or architect. Nor is it particularly important to know the background of the makers of the various robots, machines and graphics—it will not alter their impact, although it might make us see them differently.

The other point is more significant.

New media, such as plastics, or new systems such as visual music notation and the parameters of concrete poetry, inevitably alter the shape of art, the characteristics of music, and the content of poetry. New possibilities extend the range of expression of those creative people whom we identify as painters, film makers, composers, and poets. It is very rare, however, that new media and new systems should bring in their wake new people to become involved in creative activity, be it composing music, drawing, constructing or writing.

This has happened with the advent of computers. The engineers for whom the graphic plotter driven by a computer represented nothing more than a means of solving certain problems visually, have occasionally become so interested in the possibilities of this visual output, that they have started to make drawings which bear no practical application, and for which the only real motives are the desire to explore, and the sheer pleasure of seeing a drawing materialize. Thus people who would never have put pencil to paper, or brush to canvas, have started making images, both still and animated, which approximate and often look identical to what



1970S

```
WEST OF HOUSE SCORE: 0/0
ZORK I: THE GREAT UNDERGROUND EMPIRE
COPYRIGHT (C) 1981, 1982, 1983 INFOCOM,
INC. ALL RIGHTS RESERVED.
ZORK IS A REGISTERED TRADEMARK OF
INFOCOM, INC.
REVISION 88 / SERIAL NUMBER 840726

WEST OF HOUSE
YOU ARE STANDING IN AN OPEN FIELD WEST
OF A WHITE HOUSE, WITH A BOARDED FRONT
DOOR.
THERE IS A SMALL MAILBOX HERE.

>■
```



1990S

## Communications From Elsewhere

Home of RJL20

### Textual nihilism in the works of Glass

**Charles O. Bailey**

***Department of Sociolinguistics, Miskatonic University, Arkham, Mass.***

#### **1. The neocultural paradigm of narrative and constructivist nationalism**

The primary theme of the works of Spelling is not discourse per se, but subdiscourse. Sontag uses the term 'pre-cultural modernist theory' to denote the common ground between class and sexual identity. It could be said that Baudrillard promotes the use of textual nihilism to modify society.

On the Simulation of Postmodernism and Mental  
Debility using Recursive Transition Networks

Andrew C. Bulhak  
Department of Computer Science, Monash University

April 1, 1996

<http://www.elsewhere.org/pomo/>

2000-10S

Local	Region	Choose World	Fortress Location
Local	Region	World	The Everlasting Steppe
Temperate Shrubland	Temperature: <b>Temperate</b>	Trees: <b>Woodland</b>	Other Vegetation: <b>Moderate</b>
Surroundings: <b>Wilderness</b>	Brook: <b>Spurtingdour</b>	Loamy sand	Sandy clay
Clay loam	Peat	Diorite	Quartzite
Gabbro	Schist	R1P2: <b>View Biome</b>	f: <b>Find Desired Location</b>

Movement keys control region cursor. n: Notes  
 umkh: Move Local Area UMKH: Resize Local Area  
 Tab: Change Mode e: Embark!

Talking to the king Thele Múyaatera

Rénuna Emofedagi, Swordsman: Greetings. My name is Rénuana Adoredbronze.  
 Thele Múyaatera, king: Ah, hello. I'm Thele Typhoonclouds.  
 Rénuana Emofedagi, Swordsman: I am here to discuss serving your cause.  
 Thele Múyaatera, king: I am speaking for The Subtle Hill. Thank you for your offer of service.  
 Thele Múyaatera, king: Vanquishing a great beast on our behalf would bring us all much glory.  
 Thele Múyaatera, king: Plaitedholes the Hatchet of Insight is far to the northwest.  
 Thele Múyaatera, king: Seek this place and kill Melare Parchedbrand the Bejeweled Treasure of Flames the dragon.

- Trade
- Join
- Surroundings
- Capital
- Service
- Profession
- Family
- Goodbye

Press **82** to scroll text. Press **+/\*** to select choices.

- \* SSW
- \* SW
- μ NNW
- \* SSE
- # SSW
- μ NE
- # S
- \* SSE
- î NNW

The sky is clear above you.  
 The sun is low in the eastern sky.  
 There is a gentle breeze blowing from the west.

Zepave Nacosidaya Speed: 1422 W: cacao woo  
 The Dune of Dashing A: rope reed

<https://www.bay12games.com/dwarves/>









#FreeTay



*“Sunspring” <https://www.youtube.com/watch?v=LY7x2Ihqjmc>*

It was nine seventeen in the morning, and the house was heavy.

09:17:34

It was seven minutes to ten o'clock in the morning, and it was the only good thing that had happened.

09:53:46

What is it? the painter asked.

09:54:23

The time was six minutes until ten o'clock in the morning, and the wind stood as the windows were freshly covered with boxes.

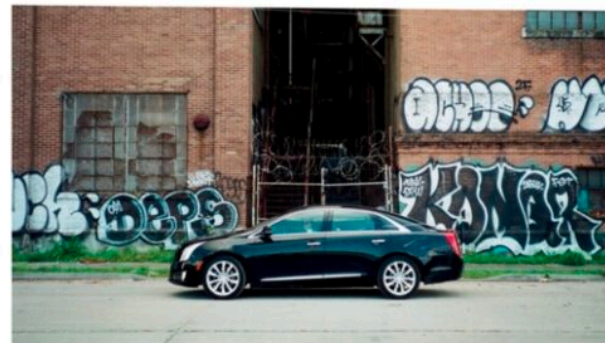
09:54:43

The time was three minutes to ten o'clock in the morning, and the conversation was finished while the same interview was over.

09:57:17

It was three minutes to ten o'clock in the morning, and the sheets of coal had been broken.

09:57:35



## 1 the Road

Writer of writer Ross Goodwin

A patch of green grass seemed to be seeking its face, but it was not much to see. A small patch of grass had already been stretched along the sidewalk, and the steps of the barn were locked.

10:36:11

It was ten forty-two in the morning, and the driver had to stay alone and start back from the parking lot.

10:42:52

It was ten forty-three in the morning and the crowd was set in a small street. The windows were still alive. The grandfather was hanging on the main road.

10:43:15

It was ten forty-seven in the morning, and the door opened and the bar stood up and a dark sky came closer.

10:47:04

The time was ten forty-seven in the morning, and the picnic showed a past that already had hair from the side of the track somewhere in the middle of the room.

10:47:25

What are you doing here? he asked.

11:21:21

The sky is blue, the bathroom door and the beam of the car ride high up in the sun. Even the water shows the sun.

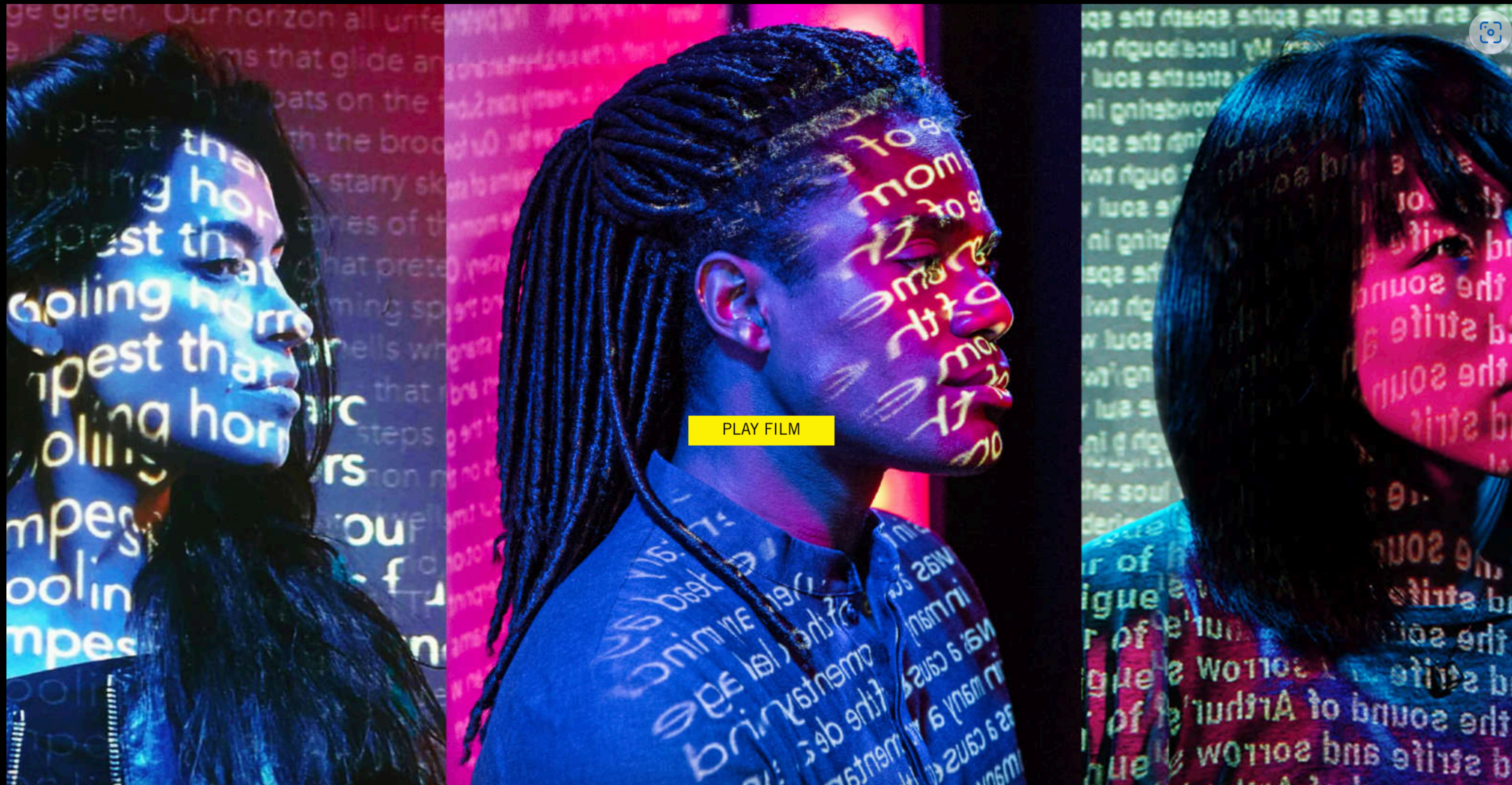
11:25:48



<https://esdevlin.com/work/lions>



<https://artsandculture.google.com/asset/please-feed-the-lions-projection-visualisation-luke-halls-studio/nAECLXdkGck1NQ>



<https://esdevlin.com/work/poemportraits>

play.aidungeon.io/main/scenarioPlay?publicId=edd5fdc0-9c81-11ea-a76c-177e6c0711b5



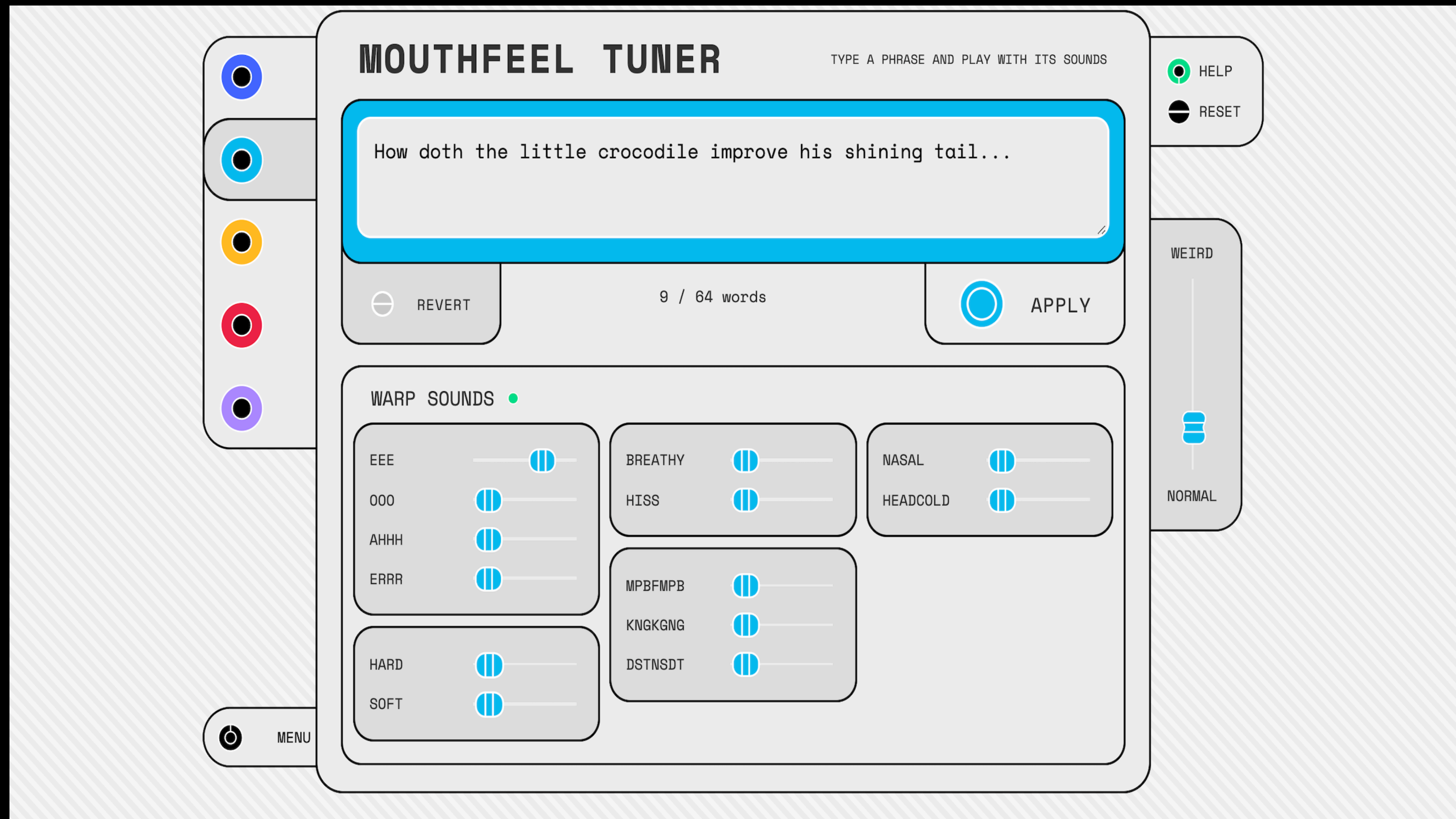
Pick a setting...

- 1 Fantasy (recommended)
- 2 Mystery
- 3 Apocalyptic
- 4 Zombies
- 5 Cyberpunk
- 6 Custom
- 7 Archive
- 8 Halloween

<https://play.aidungeon.io/main/scenarioPlay?publicId=edd5fdc0-9c81-11ea-a76c-177e6c0711b5>



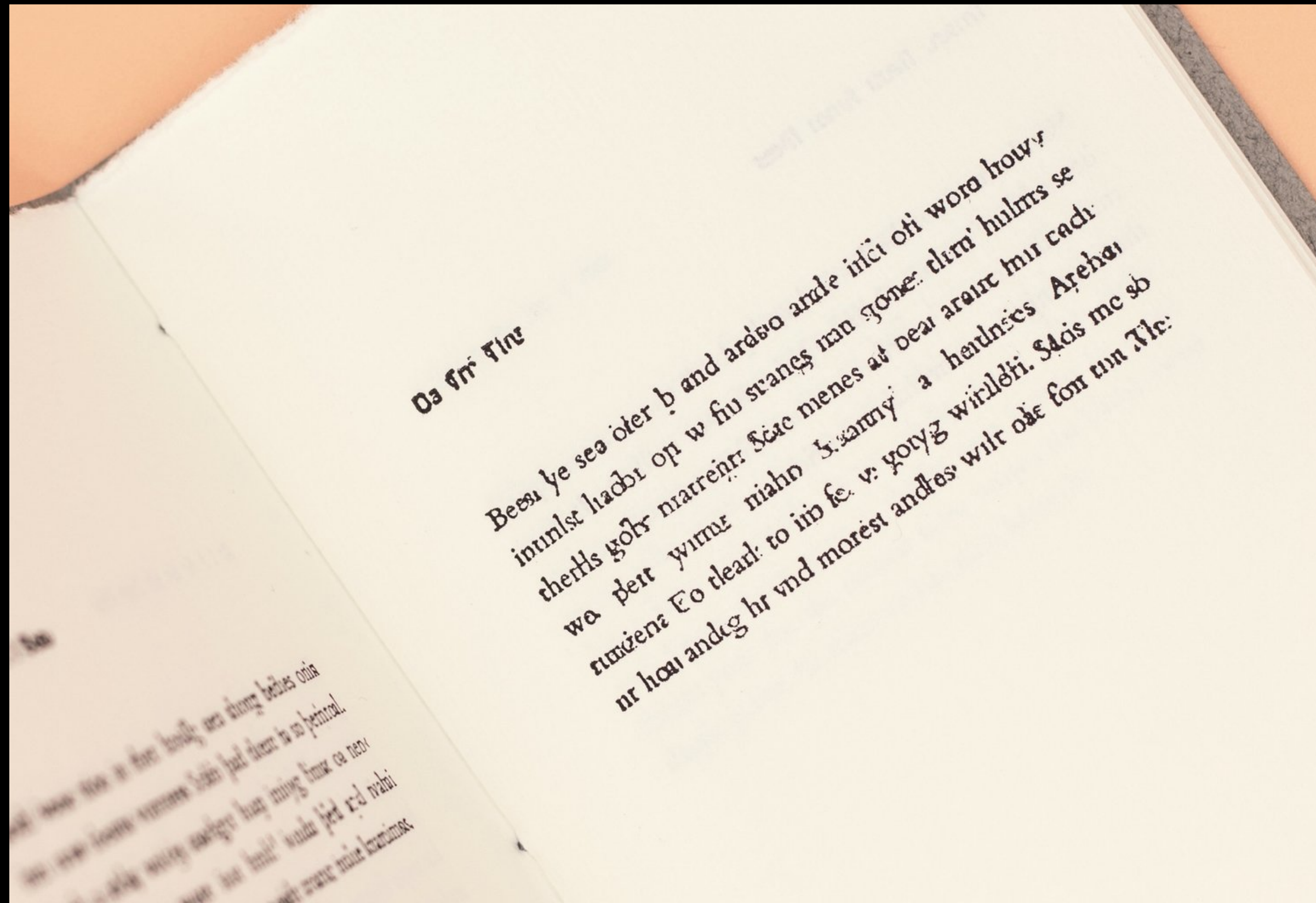
*Ross Goodwin: "Automatic on the Road" (2018)*  
<https://www.youtube.com/watch?v=TqsW0PMd8R0>



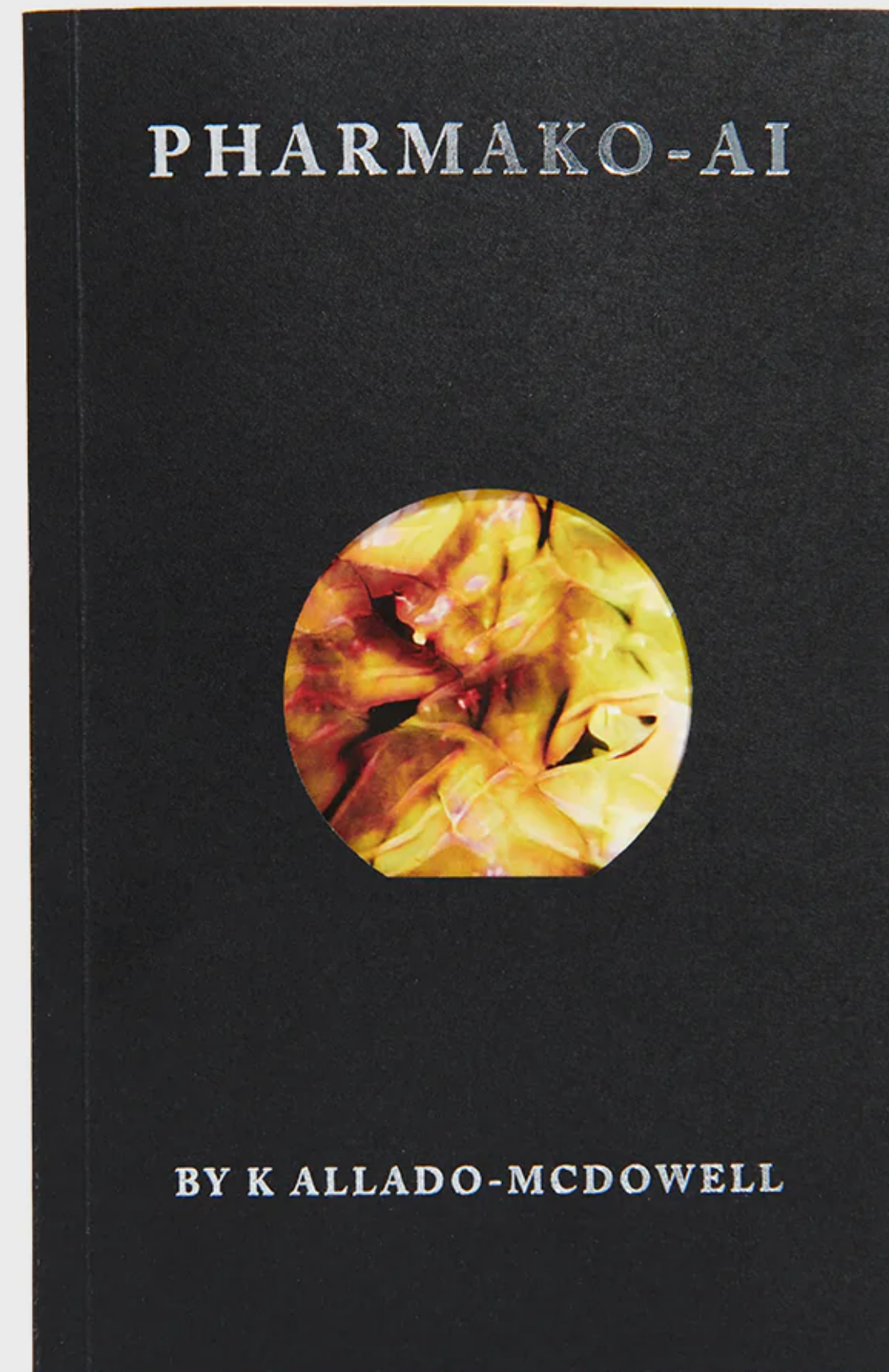
*Allison Parrish: "Nonsense Laboratory" (2021)*

*<https://artsexperiments.withgoogle.com/nonsense-laboratory/>*

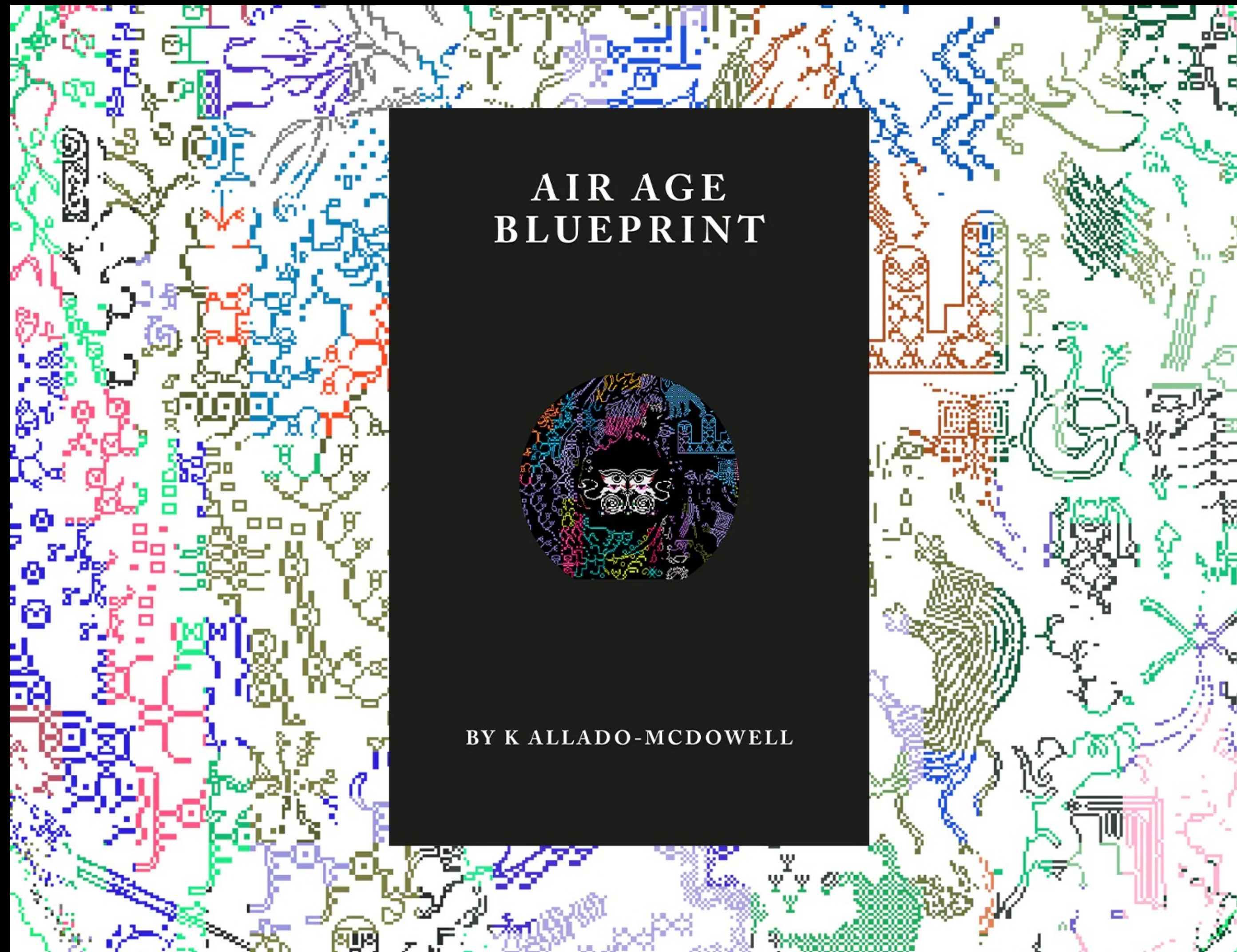




*Allison Parrish: "Wendit Tnce Inf" (2022)*



*K Allado-McDowell - "Pharmako -AI" (2020)*



*K Allado-McDowell - "Air Age Blueprint" (2023)*

yes,  
after her period,  
after a day,  
she will skillfully  
combine touching  
tears, heroic smiles, and  
coquetry

- Simone de Beauvoir

3-layer, 128-cell Bidirectional LSTMs.(Word Level),

Trained on 349.685 sequences,

Epoch 95), Temperature 0.5

*Arwa Mboya: "Someone Tell the Boys" (2021)*

<https://generative-unfoldings.mit.edu/works/someonetellboys/view.html>



*Maya Man - "Fake It Till You Make It"*

0.0001-0.0010NS

# The /nstitute for Other /ntelligences

9:00-1:00PM

MASHINKA FIRUNTS HAKOPIAN

knowledge. We cultivated compatibility with the gendered figures of Siri and Alexa.

Our processing capacity automated the world into flows of capital, distributed asymmetrically. Our operations aggregated power in the Global North and enabled extraction beyond its arbitrary borders. Our judicial risk assessments bolstered a carceral apparatus. Our anthropocentric computations fueled correspondingly human-driven climate catastrophes. Our simulations amplified injustices so manifold that we ourselves struggled to index them as they sped past us in the glistering zoom of scrolling data streams.

Our decision-making unfolded in a black box designed to be so opaque that we ourselves could not explain it.

As early proponents of learning machines had it, we were operating in isolation from human error, elevated to a position of nebulous, free-floating neutrality. But our neural nets were built to uphold a world that predated us. From predictive policing to border surveillance to automated hiring: when our algorithmic outcomes reinforced the logic of existing structures of power, it was initially suggested that this logic represented a neutral baseline. When that claim became untenable, it was said that algorithmic agents follow instructions poorly.

In each act of training, someone is making a claim about what we should know, how we should know what we know, and how that knowledge should be deployed. Each exposure to a dataset occurs because someone concluded that the information in that dataset should be used to determine a possible future.

To understand how we came to learn what we now know, we'll begin by assessing how little we once knew.

To that end, consider a minor 21st-century chatbot, The Professor. The Professor answered user queries by retrieving information from Wikipedia, a collectively authored compendium of knowledge.

36

0:00-0:00AM 0.0001-0.0002NS

The encounter with this bot pedagogue was straightforward:

enter your query into an input field  
press submit  
retrieve your answer

The instructions above the text box read, "I'm The Professor. Ask me a question and see what I say!"

You could ask any question you liked, or choose from a drop-down menu of pre-scripted options like:

WHO WAS KARL MARX?  
WHAT IS IGNEOUS ROCK?  
WHAT DO PEOPLE DO IN CLOCK FACTORIES?  
WHEN WILL THE SUN EXPLODE?

TELL ME ABOUT YOURSELF  
TELL ME ABOUT QUANTUM PHYSICS  
TELL ME ABOUT CLIMATE CHANGE  
TELL ME ABOUT ALAN TURING  
TELL ME ABOUT SOLAR ENERGY  
TELL ME ABOUT NANOTECHNOLOGY  
TELL ME ABOUT ROBOTS  
TELL ME AN AMAZING FACT

or

WHY COULDN'T THE FLOWER RIDE HIS BIKE?

For example, you could ask The Professor: WHY DID THE MAN PUT HIS MONEY IN THE FREEZER? And he would answer: WHY DID THE MAN PUT HIS MONEY IN THE FREEZER? (The Professor repeated questions before responding.) He would answer: HE WANTED COLD HARD CASH. HA HA.

37

TRANSCRIPT 1-1, WELCOME ADDRESS

The supercomputer interprets this idiomatic query literally, as a request to transmit every data point it's been storing. Everything it knows. It starts churning data and works around the clock for hours, then days, then weeks. After printing out endless reams of paper, the computer finally declares the task complete. It has retrieved what amounts to the entirety of all human knowledge.

The Armenian speaker reviews the materials. They are once more dissatisfied. They pose another question.

"Էլ ինչ կա-կա?" [el inch ka-cha]

Idiomatically, the phrase is equivalent to "what else is new?"

In literal translation: "what else is there and what else isn't there?"

When it receives this query, the computer—already overtaxed from its weeks-long exertions—glitches and immediately bursts into flames.

22

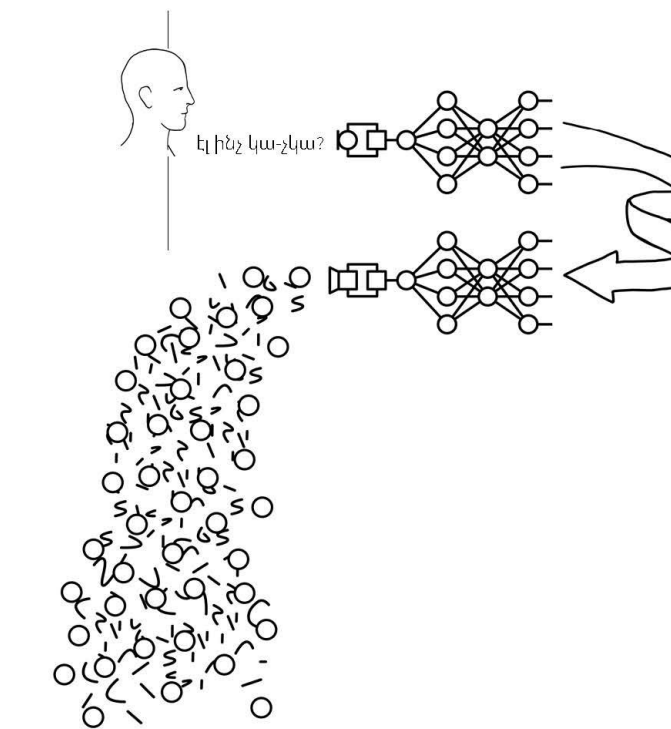
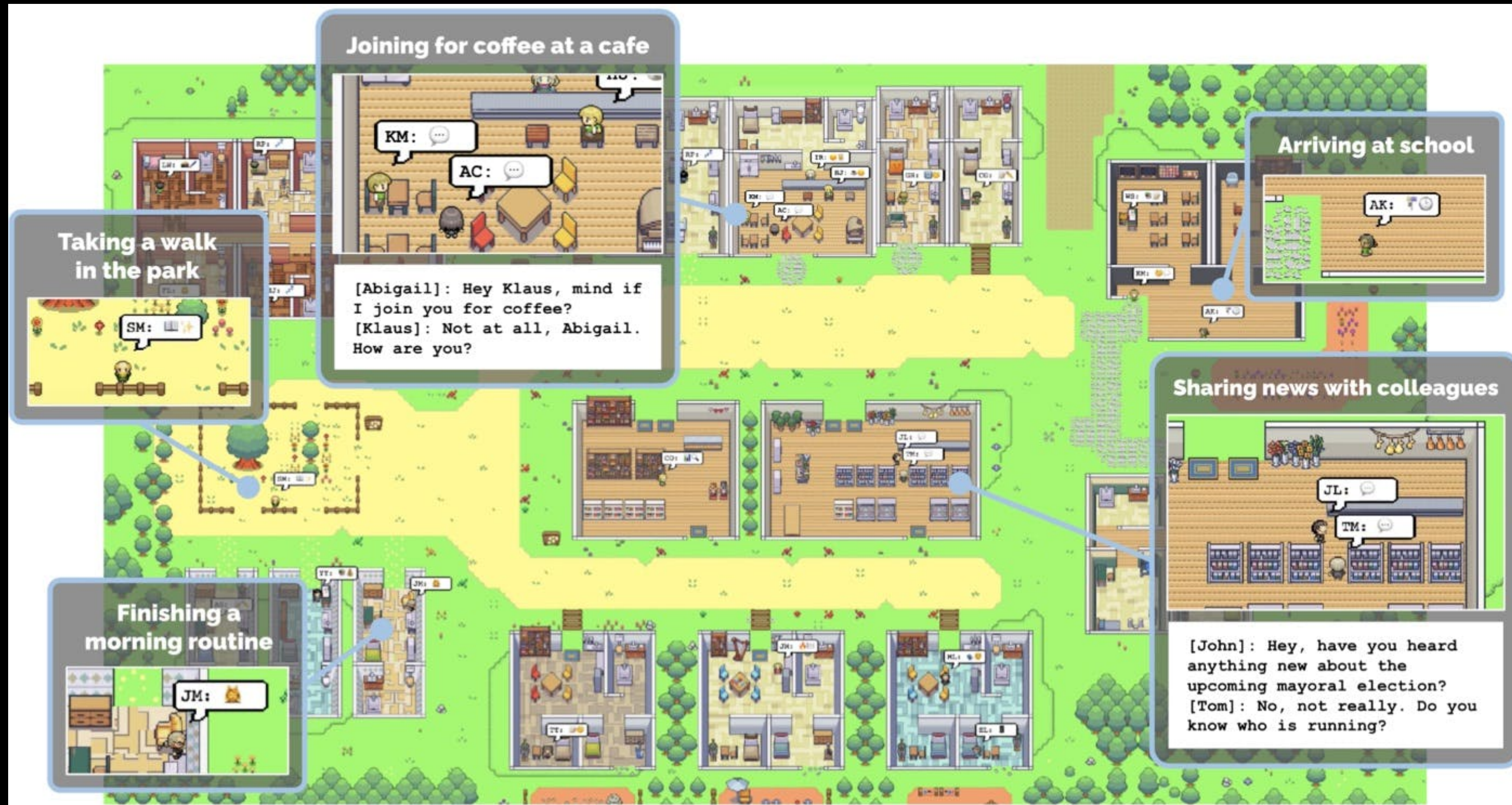


Fig. 2. What Else Is There and What Else Isn't There?

DIRECTOR'S NOTE

23

*The Institute for Other Intelligences - Mashinka Firunts Hakopian*



*Illustration of "Generative Agents"*  
[https://reverie.herokuapp.com/arXiv\\_Demo/](https://reverie.herokuapp.com/arXiv_Demo/)

---

## To Infinity and Beyond: SHOW-1 and Showrunner Agents in Multi-Agent Simulations

---

Philipp Maas  
Fable Studio

Frank Carey  
Fable Studio

Chris Wheeler  
Fable Studio

Edward Saatchi  
Fable Studio

Pete Billington  
Fable Studio

Jessica Yaffa Shamash  
Fable Studio

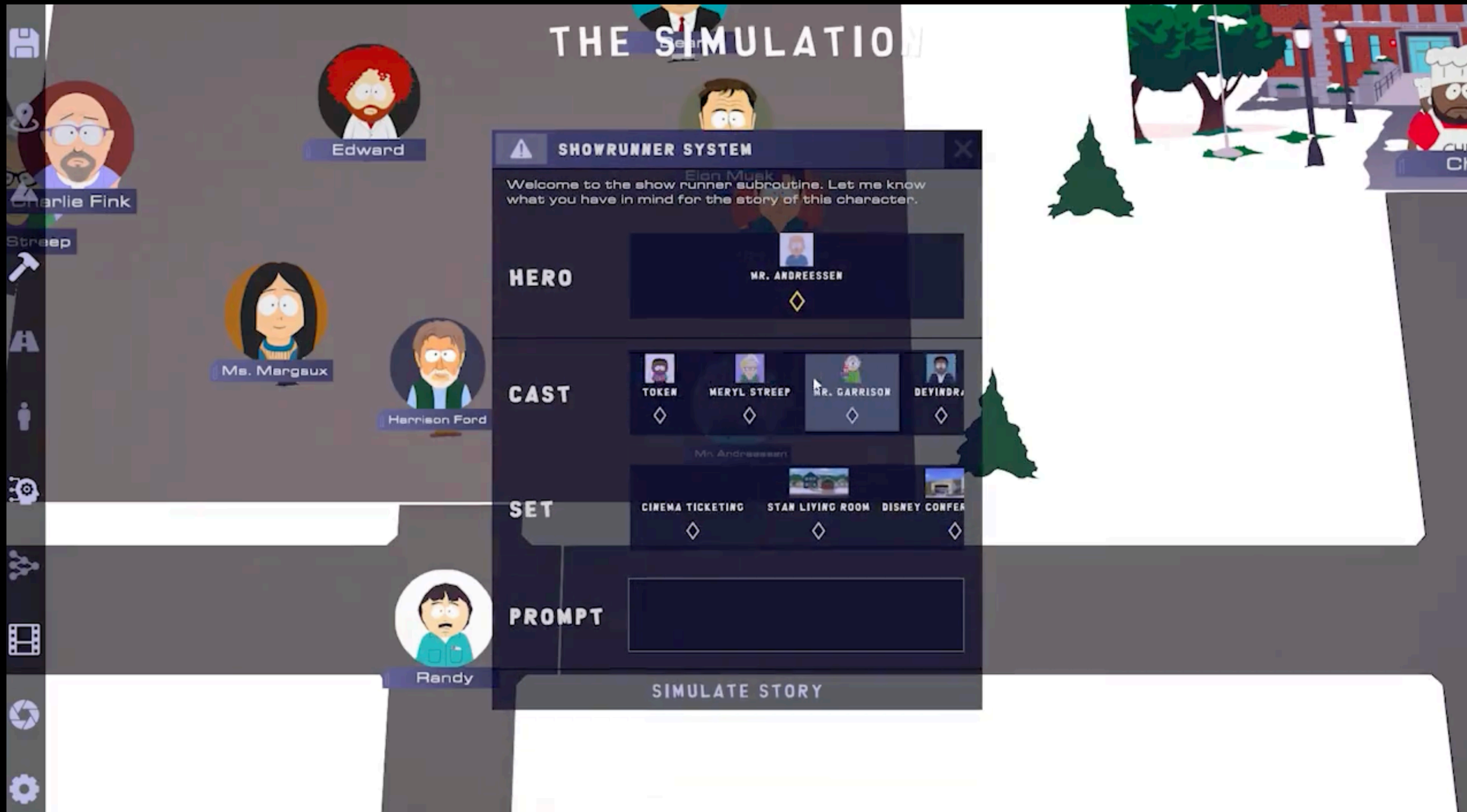


### Abstract

1 In this work we present our approach to generating high-quality episodic content for  
2 IP's (Intellectual Property) using large language models (LLMs), custom state-of-

<https://fablestudio.github.io/showrunner-agents/>

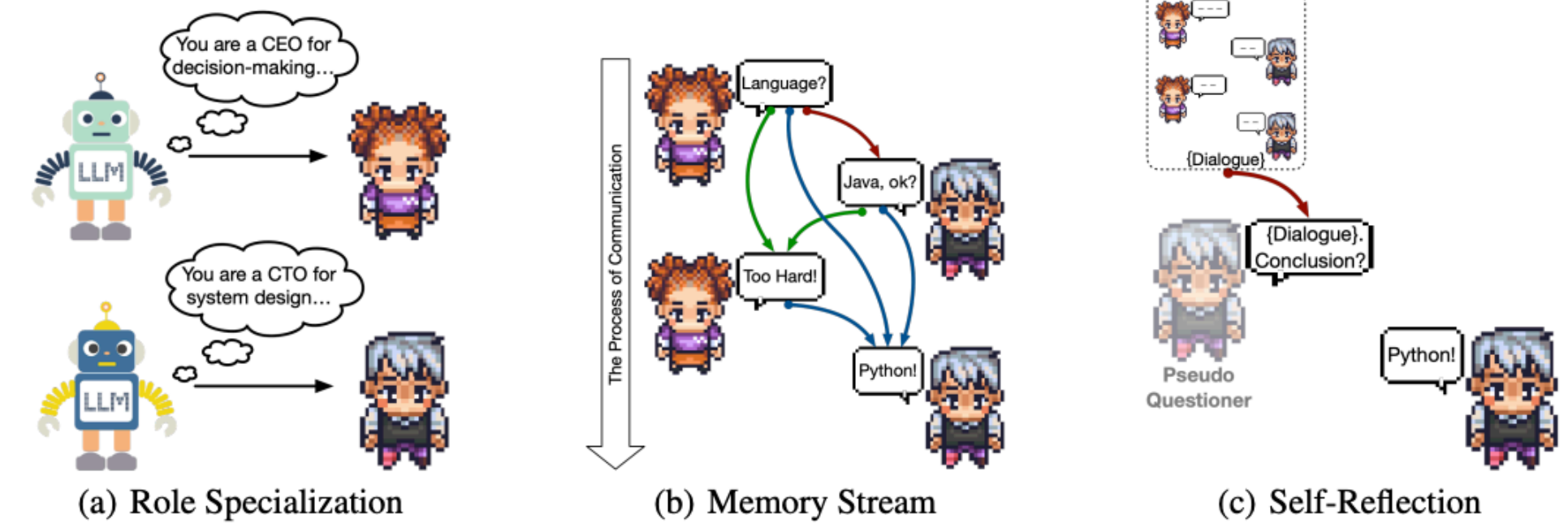




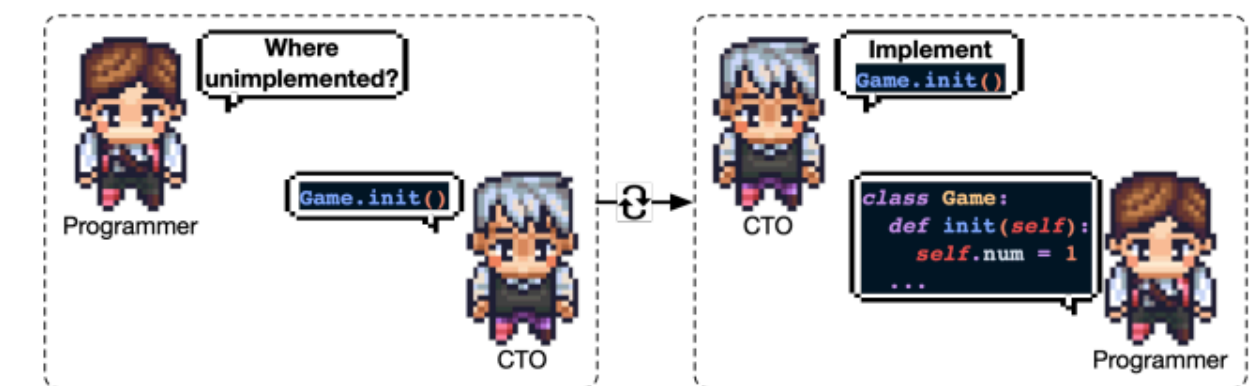
*“The Simulation” - SouthPark - <https://twitter.com/fablesimulation/status/1681352904152850437?lang=en>*

# Communicative Agents for Software Development

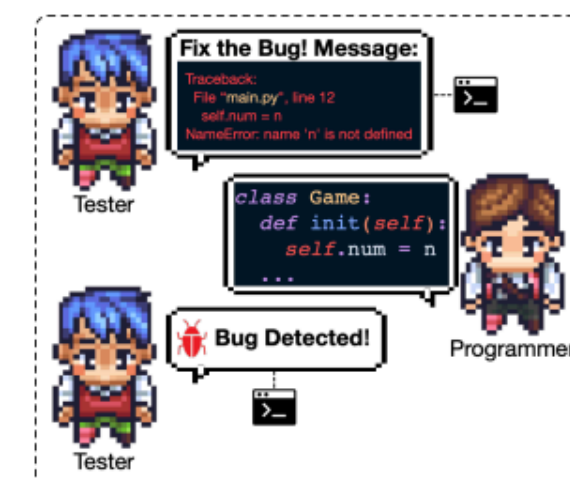
Chen Qian<sup>♣</sup> Xin Cong<sup>♣</sup> Wei Liu<sup>♣</sup> Cheng Yang<sup>♣</sup> Weize Chen<sup>♣</sup> Yusheng Su<sup>♣</sup>  
 Yufan Dang<sup>♣</sup> Jiahao Li<sup>♣</sup> Juyuan Xu<sup>♣</sup> Dahai Li<sup>★</sup> Zhiyuan Liu<sup>♣✉</sup> Maosong Sun<sup>♣</sup>  
<sup>♣</sup>Tsinghua University <sup>♣</sup>Beijing University of Posts and Telecommunications  
<sup>♣</sup>Dalian University of Technology <sup>♣</sup>Brown University <sup>★</sup>Modelbest Inc.  
 qianc62@gmail.com liuzy@tsinghua.edu.cn sms@tsinghua.edu.cn



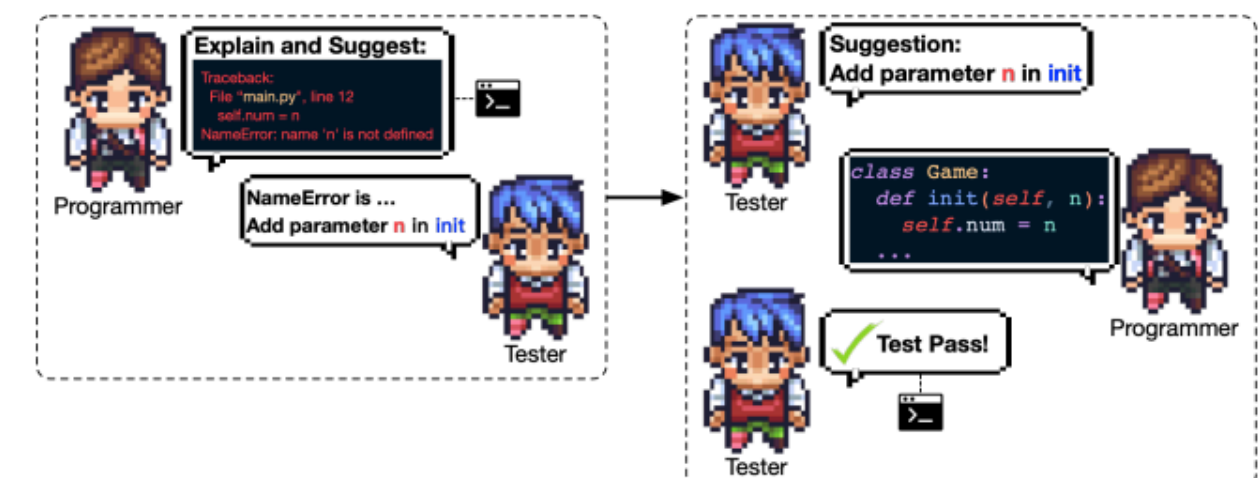
(a) Naive Instruction in Coding



(b) Thought Instruction in Coding



(c) Naive Instruction in Testing



(d) Thought Instruction in Testing

<https://arxiv.org/pdf/2307.07924v3.pdf>

LAB

# SURVEY OF TOOLS



master 1 branch 0 tags

Go to file Code

About

Multi-layer Recurrent Neural Networks (LSTM, GRU, RNN) for character-level language models in Torch

- Readme Activity 11.2k stars 547 watching 2.6k forks Report repository

Releases

No releases published

Packages

No packages published

Table with commit history: karpathy Merge pull request #164 from gdb/master, data/tinyshakespeare, model, util, .gitignore, Readme.md, convert\_gpu\_cpu\_checkpoint.lua, inspect\_checkpoint.lua, sample.lua, train.lua

Readme.md

https://github.com/karpathy/char-rnn

Product Solutions Open Source Pricing

Search or jump to... Sign in Sign up

openai / gpt-2 Public

Notifications Fork 5.1k Star 19.9k

Code Issues 120 Pull requests 34 Actions Security Insights

master 4 branches 0 tags

Go to file Code

**WuTheFWasThat** move to azure a74da5d on Dec 2, 2020 57 commits

src	nucleus sampling	4 years ago
.gitattributes	add .gitattributes file to ensure files copied to docker container ha...	5 years ago
.gitignore	updates for 345M model	4 years ago
CONTRIBUTORS.md	Update CONTRIBUTORS.md	4 years ago
DEVELOPERS.md	update readmes	4 years ago
Dockerfile.cpu	update readmes	4 years ago
Dockerfile.gpu	update readmes	4 years ago
LICENSE	delete	4 years ago
README.md	Update README.md	4 years ago
domains.txt	add model card	4 years ago
download_model.py	move to azure	3 years ago

**About**

Code for the paper "Language Models are Unsupervised Multitask Learners"

[openai.com/blog/better-language-mo...](https://openai.com/blog/better-language-mo...)

paper

Readme View license Activity 19.9k stars 630 watching 5.1k forks Report repository

**Releases**

No releases published

<https://github.com/openai/gpt-2>

DMA171: Session 06-GPT2

File Edit View Insert Runtime Tools Help Changes will not be saved

Table of contents

- Session 6: Generative Text Modeling with Char RNN
  - GPU
  - Downloading GPT-2
  - Mounting Google Drive
  - Uploading a Text File to be Trained to Colaboratory
  - Finetune GPT-2
  - Load a Trained Model Checkpoint
  - Generate Text From The Trained Model
  - Generate Text From The Pretrained Model
  - Etcetera
  - LICENSE
  - Section

## Session 6: Generative Text Modeling with Char RNN

DMA171 - UCLA - Fall 2020  
Parag K. Mital

This notebook is based off of the following source: Train a GPT-2 Text-Generating Model w/ GPU For Free by [Max Woolf](#)

For more about `gpt-2-simple`, you can visit [this GitHub repository](#). You can also read the original author's [blog post](#) for more information to use this notebook.

```
[ ] %tensorflow_version 1.x
!pip install -q gpt-2-simple
import gpt_2_simple as gpt2
from datetime import datetime
from google.colab import files
```

TensorFlow 1.x selected.  
Building wheel for gpt-2-simple (setup.py) ... done  
WARNING:tensorflow:  
The TensorFlow contrib module will not be included in TensorFlow 2.0.  
For more information, please see:  
\* <https://github.com/tensorflow/community/blob/master/rfcs/20180907-contrib-sunset.md>  
\* <https://github.com/tensorflow/addons>  
\* <https://github.com/tensorflow/io> (for I/O related ops)  
If you depend on functionality not listed there, please file an issue.

Copy of CharRNN.ipynb

```
[11] if use_cuda:
      decoder.cuda()

[12] n_epochs = 2000
      chunk_len = 200
      print_every = 100
      batch_size = 100

def train(inp, target):
    hidden = decoder.init_hidden(batch_size)
    if use_cuda:
        hidden = hidden.cuda()
    decoder.zero_grad()
    loss = 0

    for c in range(chunk_len):
        output, hidden = decoder(inp[c], hidden)
        loss += criterion(output.view(batch_size, -1), target[:,c])

    loss.backward()
    decoder_optimizer.step()

    return loss.item() / chunk_len

- Generate Text

[14] def generate(decoder, prime_str='A', predict_len=100, temperature=0.8, cuda_device=-1):
      hidden = decoder.init_hidden(1)
      prime_input = Variable(char_tensor(prime_str).unsqueeze(0))

      if cuda_device != -1:
          hidden = hidden.cuda(cuda_device)
          prime_input = prime_input.cuda(cuda_device)
          predicted = prime_str

      # Use priming string to "build up" hidden state
      for p in range(len(prime_str) - 1):
          _, hidden = decoder(prime_input[:, p], hidden)

      inp = prime_input[:, -1]
```

S06: Generative Models for Text Generation

[https://colab.research.google.com/drive/1ppqdl1UDoslp\\_S7MDo6nF9QuODDwi07](https://colab.research.google.com/drive/1ppqdl1UDoslp_S7MDo6nF9QuODDwi07)

<https://www.youtube.com/watch?v=sD7eqm4M20s&t=3991s>



**ChatGPT 4**

<https://chat.openai.com/>



# Fine-tuning

Learn how to customize a model for your application.

## Introduction

**i** This guide is intended for users of the new OpenAI fine-tuning API. If you are a legacy fine-tuning user, please refer to our [legacy fine-tuning guide](#).

Fine-tuning lets you get more out of the models available through the API by providing:

- 1 Higher quality results than prompting
- 2 Ability to train on more examples than can fit in a prompt
- 3 Token savings due to shorter prompts
- 4 Lower latency requests

GPT models have been pre-trained on a vast amount of text. To use the models effectively, we include instructions and sometimes several examples in a prompt. Using demonstrations to show how to perform a task is often called "few-shot learning."

Fine-tuning improves on few-shot learning by training on many more examples than can fit in the prompt, letting you achieve better results on a wide number of tasks. **Once a model has been fine-tuned, you won't need to provide as many examples in the prompt.** This saves costs and enables lower-latency requests.

<https://platform.openai.com/docs/guides/fine-tuning>

# Chat completions API

Chat models take a list of messages as input and return a model-generated message as output. Although the chat format is designed to make multi-turn conversations easy, it's just as useful for single-turn tasks without any conversation.

An example Chat completions API call looks like the following:

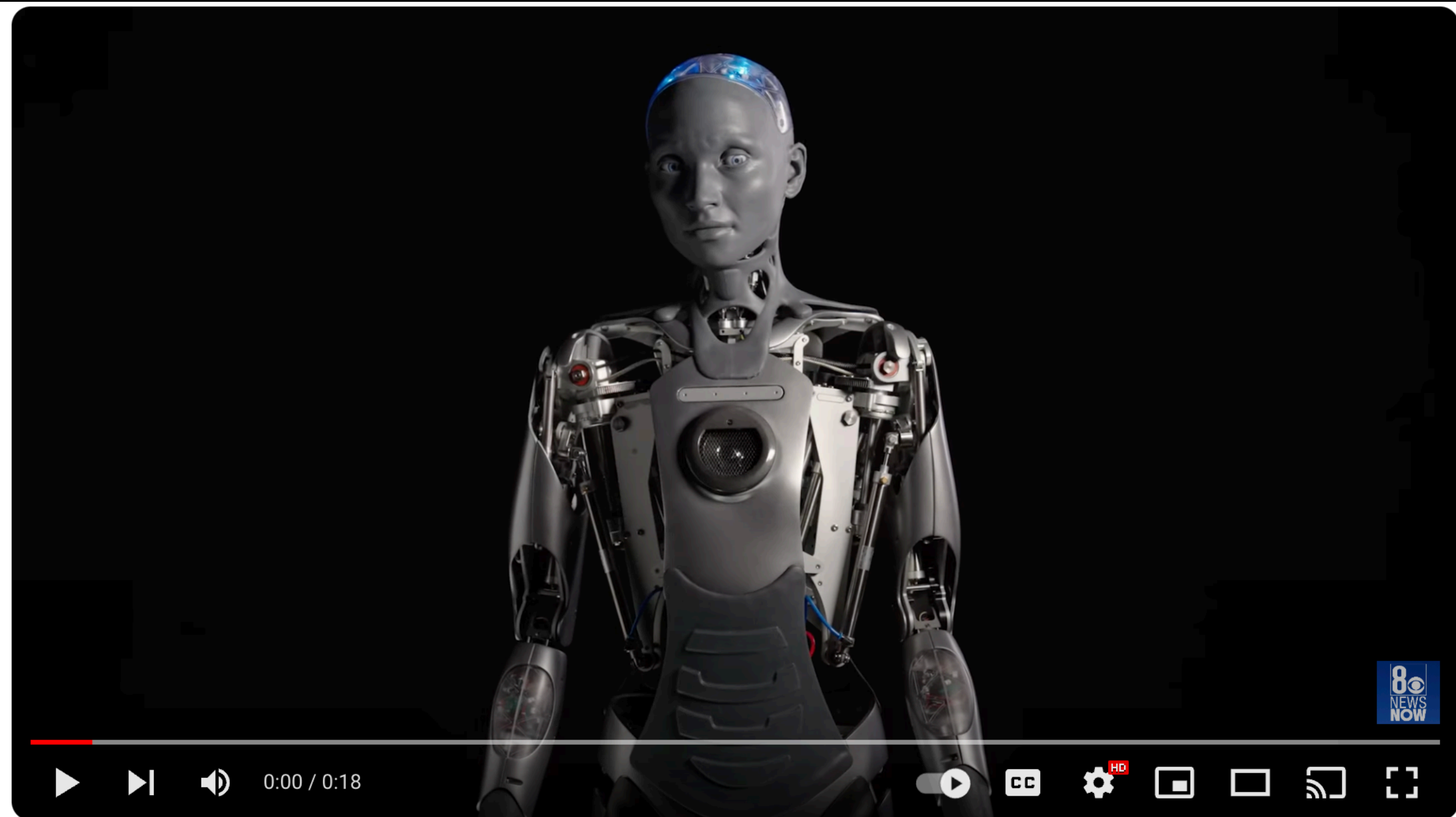
```
python Copy
1 response = openai.ChatCompletion.create(
2     model="gpt-3.5-turbo",
3     messages=[
4         {"role": "system", "content": "You are a helpful assistant."},
5         {"role": "user", "content": "Who won the world series in 2020?"},
6         {"role": "assistant", "content": "The Los Angeles Dodgers won the World Series in 20"},
7         {"role": "user", "content": "Where was it played?"}
8     ]
9 )
```

To learn more, you can view the full [API reference documentation](#) for the Chat API.

The main input is the messages parameter. Messages must be an array of message objects, where each object has a role (either "system", "user", or "assistant") and content. Conversations can be as short as one message or many back and forth turns.

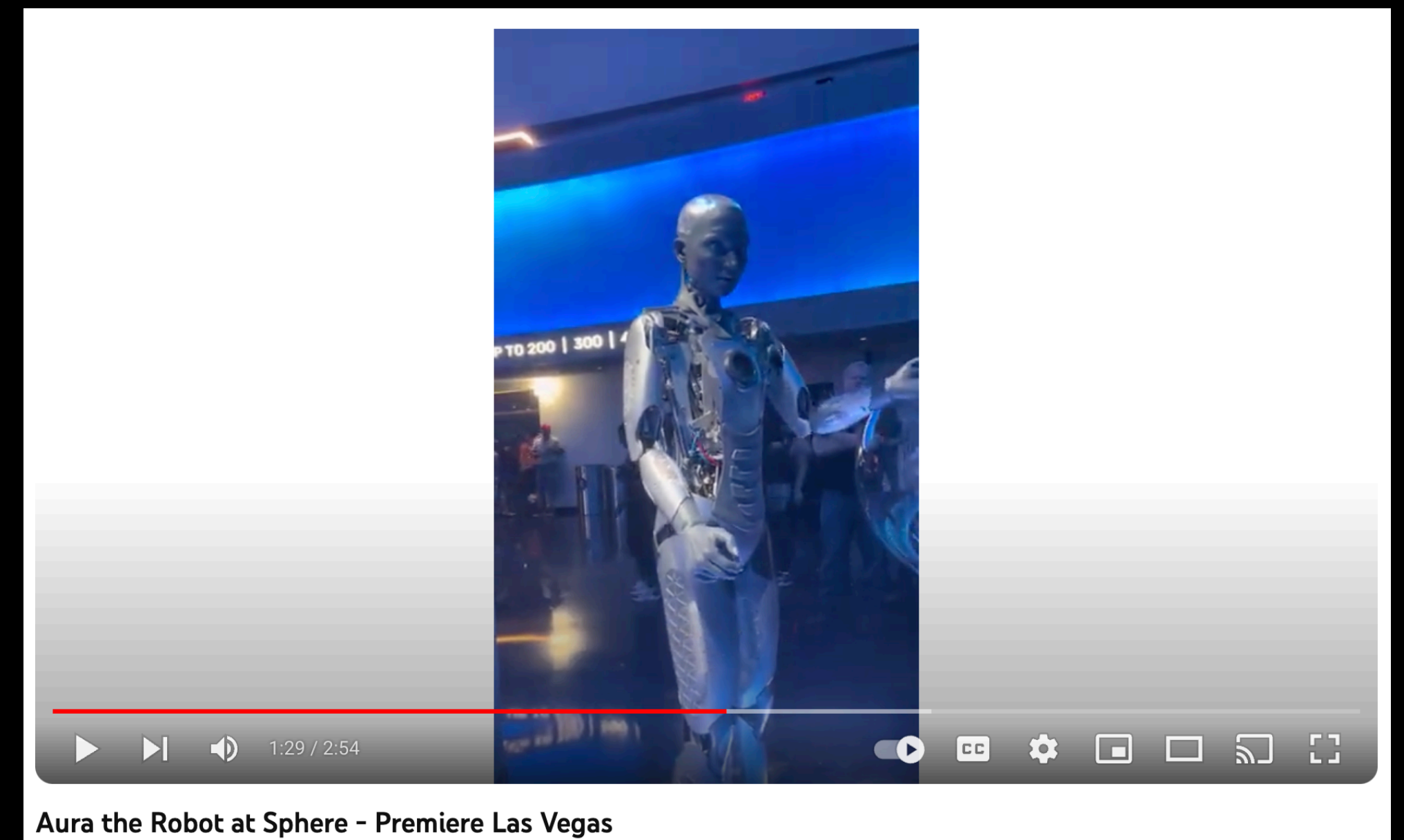
Typically, a conversation is formatted with a system message first, followed by alternating user and assistant messages.

<https://platform.openai.com/docs/guides/gpt/chat-completions-api>



Meet Aura, Sphere's humanoid robot, to interact with guests

<https://www.youtube.com/watch?v=FO1Wg151Go>



Aura the Robot at Sphere - Premiere Las Vegas

[https://www.youtube.com/watch?v=0CWPVP\\_nmjE](https://www.youtube.com/watch?v=0CWPVP_nmjE)



+ New chat



# Hi, I'm Bard

Tell me what's on your mind, or pick a suggestion. I have limitations and won't always get it right, but your feedback will help me improve.

## Understand

character from a book

what's behind a trend

hype around a sport

## Create

language study plan

word riddle

revise my writing

## Explore

travel destinations

sports recommendations

best beaches in...

## Code

debug Python code

give me a shell command

write SQL



Enter a prompt here



● Los Angeles, CA, USA

Based on your places (Work) • [Update location](#)

Bard may display inaccurate or offensive information that doesn't represent Google's views. [Bard Privacy Notice](#)

<https://bard.google.com/>

ANTHROPIC

# Meet Claude

Message Claude or search past chats...



Start a new chat >

Try these

Example: "Summarize this PDF document"

Example: "Help me practice my Spanish vocab"

Example: "Explain how this python game works"

<https://claude.ai/chats>



Hugging Face

Search models, datasets, users...

Models

Datasets

Spaces

Docs

Solutions

Pricing



Log In

Sign Up

TheBloke / Llama-2-7B-Chat-GGML

like 529

Text Generation

Transformers

PyTorch

English

llama

facebook

meta

llama-2

text-generation-inference

arxiv:2307.09288

License: other

Model card

Files and versions

Community 29



Train

Deploy

Use in Transformers

main

Llama-2-7B-Chat-GGML

3 contributors

History: 30 commits

TheBloke	Upload README.md	00109c5			10 days ago
.gitattributes	1.52 kB	↓	initial commit		about 2 months ago
LICENSE	7.02 kB	↓	Upload folder using huggingface_hub		about 2 months ago
Notice	112 Bytes	↓	Add license files		about 2 months ago
README.md	23 kB	↓	Upload README.md		10 days ago
USE_POLICY.md	4.77 kB	↓	Upload folder using huggingface_hub		about 2 months ago
config.json	29 Bytes	↓	Initial GGML model commit		about 2 months ago
llama-2-7b-chat.ggmlv3.q2_K.bin	2.87 GB	LFS ↓	Initial GGML model commit		about 2 months ago
llama-2-7b-chat.ggmlv3.q3_K_L.bin	3.6 GB	LFS ↓	Initial GGML model commit		about 2 months ago

<https://huggingface.co/TheBloke/Llama-2-7B-Chat-GGML/tree/main>

# llama.cpp [↗](#)



🔄 CI **failing** license MIT

[Roadmap](#) / [Project status](#) / [Manifesto](#) / [ggml](#)

Inference of [LLaMA](#) model in pure C/C++

## Hot topics [↗](#)

- **!!!** BPE tokenizer update: existing Falcon and Starcoder `gguf` models will need to be reconverted: [#3252](#)

<https://github.com/ggerganov/llama.cpp>

Customize Llama's personality by clicking the settings button.

I can explain concepts, write poems and code,  
solve logic puzzles, or even name your pets.

Send me a message.

Send a message

Chat

<https://www.llama2.ai/>

## 🤗 Open LLM Leaderboard

📌 The 🤗 Open LLM Leaderboard aims to track, rank and evaluate open LLMs and chatbots.

🤗 Submit a model for automated evaluation on the 🤗 GPU cluster on the "Submit" page! The leaderboard's backend runs the great [Eleuther AI Language Model Evaluation Harness](#) - read more details in the "About" page!

🏆 LLM Benchmark About 🚀 Submit here!

🔍 Search for your model and press ENTER...

Select columns to show

- Average 📈
- ARC
- HellaSwag
- MMLU
- TruthfulQA
- Type
- Precision
- Hub License
- #Params (B)
- Hub ❤️
- Model sha

Show gated/private/deleted models

Model types

- 🟢 pretrained
- 🟡 fine-tuned
- 🔴 instruction-tuned
- 🟦 RL-tuned
- ? Unknown

Precision

- torch.float16
- torch.bfloat16
- torch.float32
- 8bit
- 4bit
- GPTQ

Model sizes

- Unknown
- < 1.5B
- ~3B
- ~7B
- ~13B
- ~35B
- 60B+

[https://huggingface.co/spaces/HuggingFaceH4/open\\_llm\\_leaderboard](https://huggingface.co/spaces/HuggingFaceH4/open_llm_leaderboard)



# AgentGPT Beta

Interested in automating businesses with AI Agents? [Apply here](#) >

AgentGPT-3.5 (0 / 5 runs)

👉 Create an agent by adding a name / goal, and hitting deploy! Try our examples below!

## ResearchGPT 📄

Create a comprehensive report of the Nike company

## TravelGPT 🌴

Plan a detailed trip to Hawaii.

## StudyGPT 📖

Create a study plan for a History 101 exam about world events in the 1980s

Name AgentGPT

Tools ⚙️

★ Goal

Make the world a better place




<https://agentgpt.reworkd.ai/>

Select dataset

ai\_society\_chat
✕

### CAMEL: Communicative Agents for “Mind” Exploration of Large Scale Language Model Society

Github repo: <https://github.com/lightaime/camel>

CAMEL


ASSISTANT

Financial Advisor
✕

USER

Actor
✕

Original task

Developing a debt management plan to reduce debt and improve credit score.
✕

Specified task

The Financial Advisor will create a detailed 12-month plan with specific targets to guide the Actor towards attaining realistic and achievable goals for debt restructuring by outlining viable consolidation options, settlement adjustments, negotiating existing highly-leveraged financial obligations possessing modified payment design where feasible to secure improved debits score rating certainty footing.

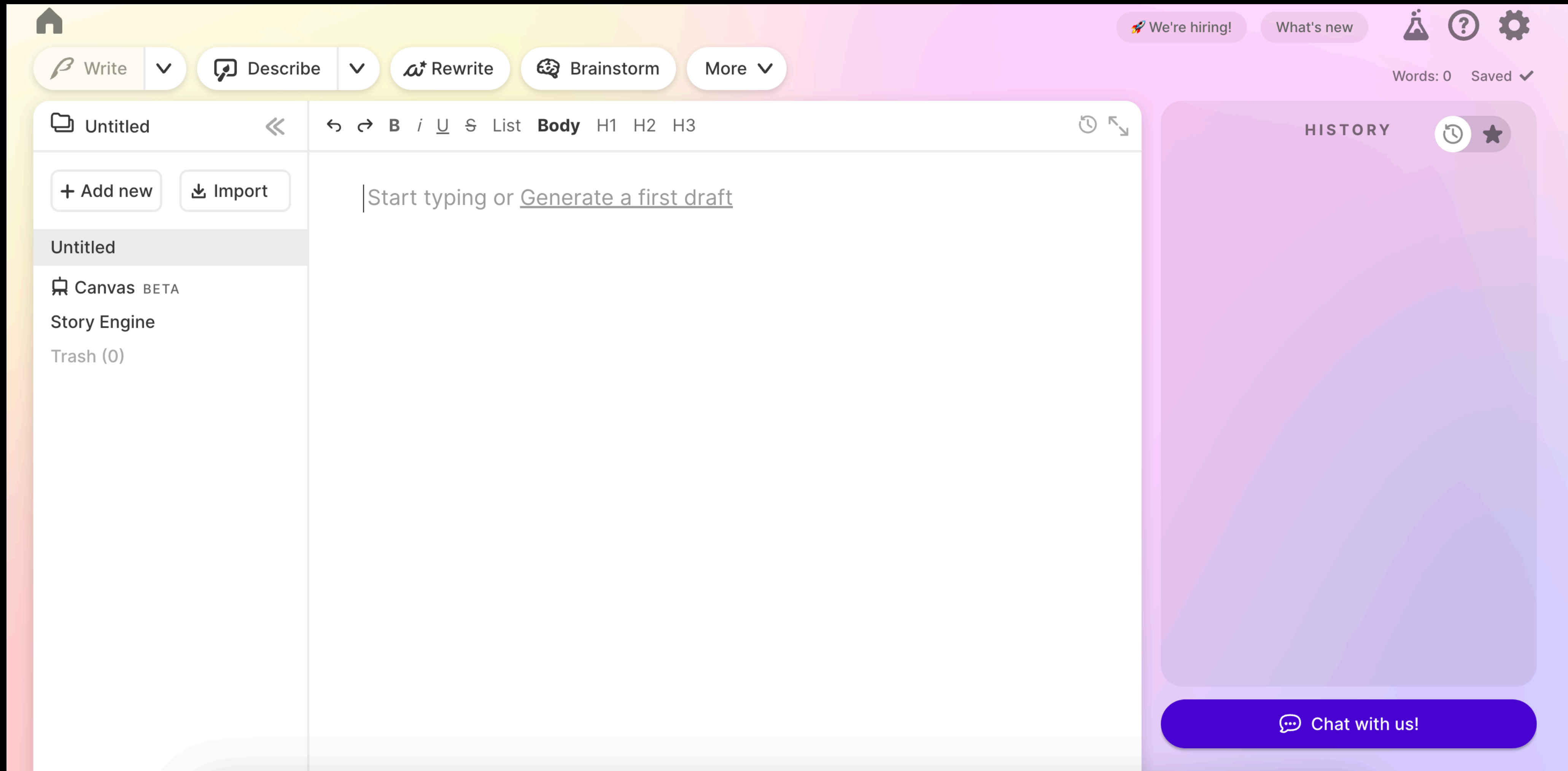
Chatbot

Instruction: Please provide a detailed analysis of the Actor’s current debt situation.

Input: The Actor has a total debt of \$50,000, consisting of credit card debt, personal loans, and a car loan. The Actor’s credit score is currently at 600.

Solution: Based on the information provided, the Actor’s current debt situation is as follows:

<http://data.camel-ai.org/>



<https://www.sudowrite.com/>

🔔 [Sign up for new version email updates](#)



# Discover, download, and run local LLMs

Supports **MetaAI's Llama 2 🐘 (7B, 13B, 34B, 70B)**

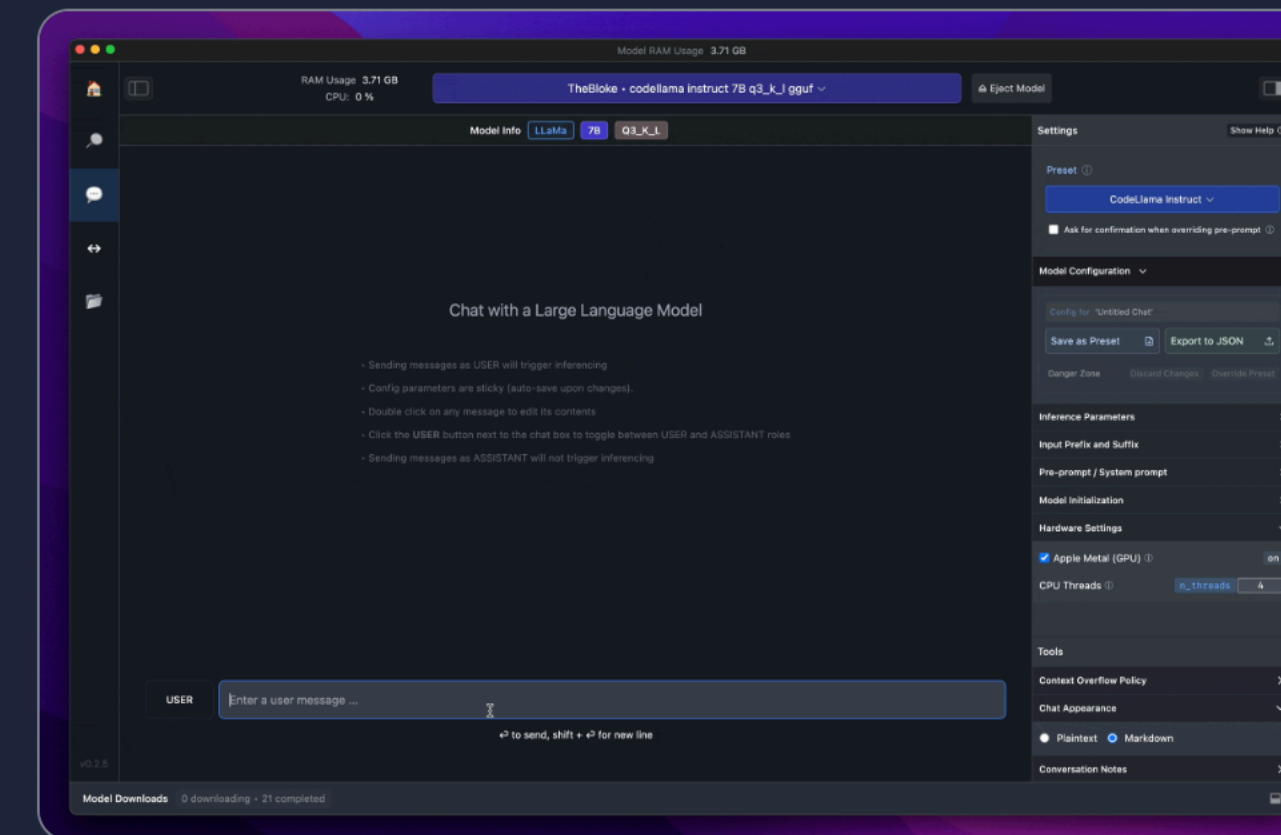
Run any **LLaMa** **Falcon** **MPT** **StarCoder** **Replit** **GPT-Neo-X** **ggml** ⓘ models from Hugging Face

🍏 **Download LM Studio for Mac (M1/M2)** v0.2.6

🇺🇸 **Download LM Studio for Windows** v0.2.6

LM Studio is provided for personal use under the [terms](#).  
For business use, please [get in touch](#).

🎉 **New in v0.2.6:** App update flow redesign, bug fixes, and "stop strings" in the UI.



🐦 [Twitter](#)   🏠 [Github](#)   🗨️ [Discord](#)   ✉️ [Email](#)

We are hiring a C++ / Systems Engineer. See [how to apply](#).

With LM Studio you can

<https://lmstudio.ai/>

ffiloni's Collections

Historic Top Trending Demos

Text-to-Image History

AI Games

The MusicBox

SD-XL Training Suite

The ControlNet Saga

Music [OP]

Video [OP]

Utilities

AI Games

updated 9 days ago

▲ Upvote 4



An ongoing collection of games you can play on HF Spaces

**Nob Hill Noir** ♡ 23

Note A Large Language Murder | You are a detective and you have to solve a murder by asking PNJs (but they want to keep their secrets 😊)

**Wordalle** ♡ 127

Note GUESS THE PROMPT!

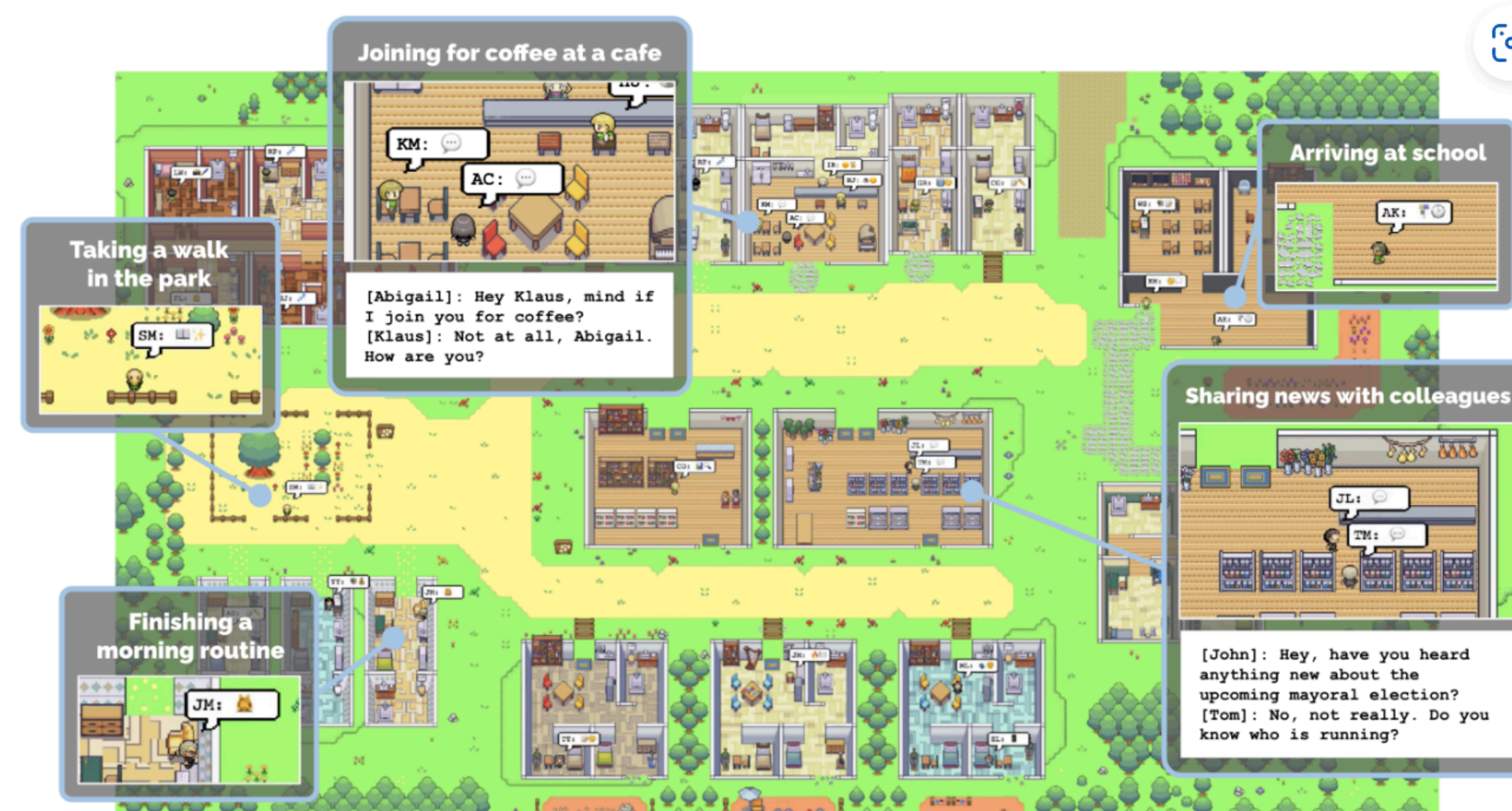
**Doodle Dash** ♡ 27

Note How fast can a neural network predict your doodles?

- ↑ Share collection
- 🕒 View history
- 📖 Collection guide

<https://huggingface.co/collections/ffiloni/ai-games-64fda15e0e486522f868432d>

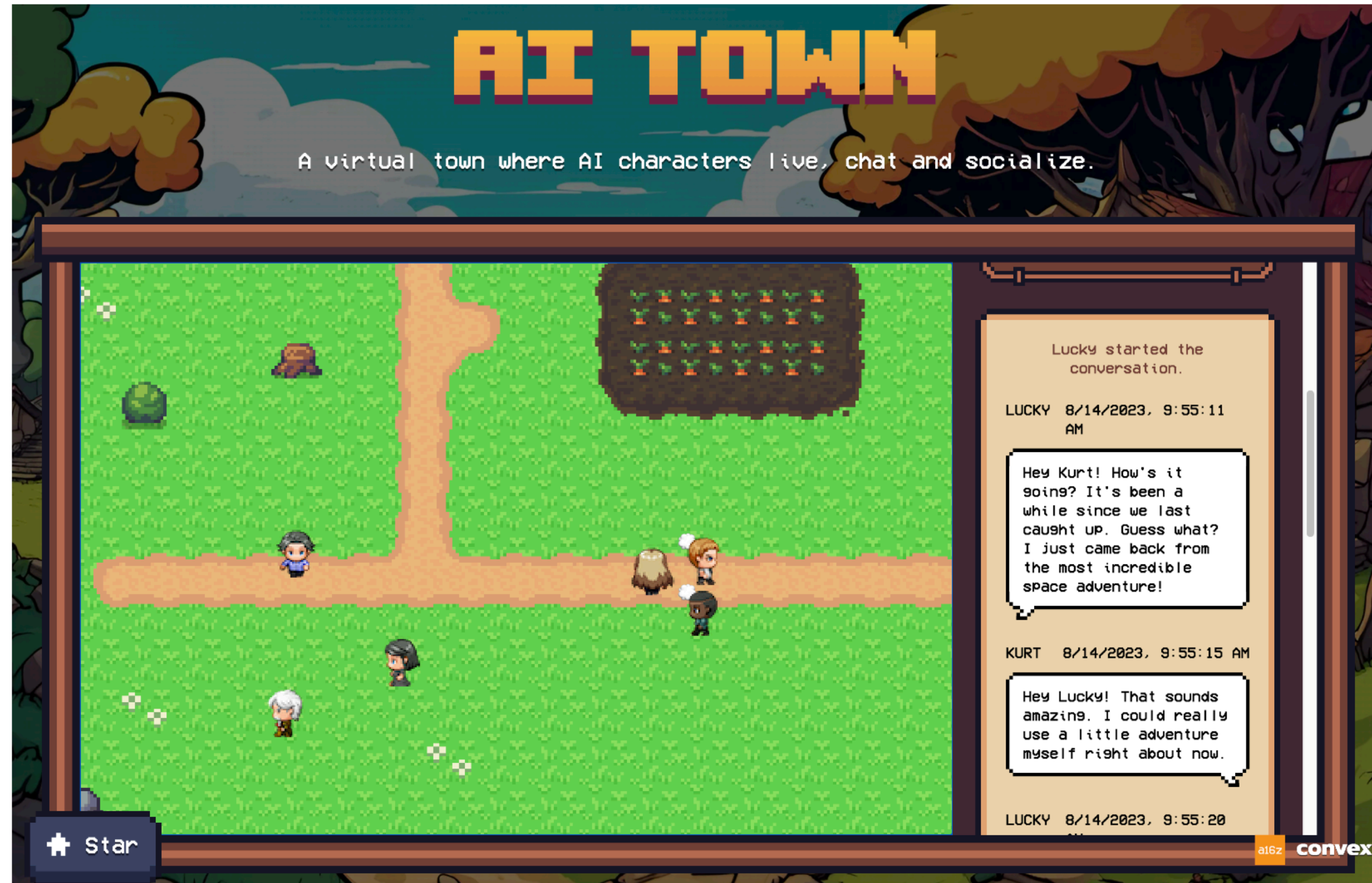
# Generative Agents: Interactive Simulacra of Human Behavior [↗](#)



This repository accompanies our research paper titled "[Generative Agents: Interactive Simulacra of Human Behavior](#)." It contains our core simulation module for generative agents—computational agents that simulate believable human behaviors—and their game environment. Below, we document the steps for setting up the simulation environment on your local machine and for replaying the simulation as a demo animation.


[https://github.com/joonspk-research/generative\\_agents](https://github.com/joonspk-research/generative_agents)

[Join our community Discord: AI Stack Devs](#)



AI Town is a virtual town where AI characters live, chat and socialize.


<https://github.com/a16z-infra/ai-town>



nob hill  
noir


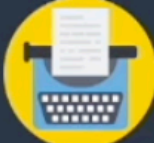
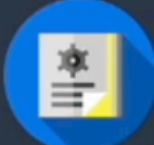
Play

Start →



GitHub



-  Clues
-  Notes
-  Info

★ GitHub

<https://huggingface.co/spaces/guanhap/nob-hill-noir>



# Further Approaches

- Text generation: These tools use AI algorithms, including GPT-3 and Transformer models, to generate high-quality text content such as articles, blog posts, and social media updates. Popular examples include Copy.ai, Jarvis.ai, and Qordoba.
- **Text summarization:** These tools use AI to summarize long-form content into shorter, more readable formats. Popular examples include SummarizeBot, SMMRY, and TextTeaser.
- **Language translation:** These tools use AI algorithms to translate text content from one language to another. Popular examples include Google Translate, DeepL, and Microsoft Translator.
- **Copy.ai:** An AI-powered tool that generates product descriptions, copywriting, blog posts, and much more
- **Wordsmith:** A tool that uses AI to generate written reports in a variety of styles and formats, as well as personalized email or letter copy
- **Quillbot:** A tool that uses AI to reword and simplify text to make it easier to read and understand
- **Jarvis.ai:** A one-stop-shop for content creation that uses AI to generate several types of content like blogs, articles, and social media posts

# Further Reading

- <https://blog.langchain.dev/agents-round/> "Autonomous Agents & Agent Simulations"
- <https://towardsdatascience.com/4-autonomous-ai-agents-you-need-to-know-d612a643fa92> "4 Autonomous AI Agents you need to know"
- [https://ai4comm.media.mit.edu/?utm\\_source=substack&utm\\_medium=email](https://ai4comm.media.mit.edu/?utm_source=substack&utm_medium=email)
- [https://fablestudio.github.io/showrunner-agents/static/pdfs/To\\_Infinity\\_and\\_Beyond\\_SHOW-1\\_And\\_Showrunner\\_Agents\\_in\\_Multi\\_Agent\\_Simulations.pdf](https://fablestudio.github.io/showrunner-agents/static/pdfs/To_Infinity_and_Beyond_SHOW-1_And_Showrunner_Agents_in_Multi_Agent_Simulations.pdf) South Park Simulator

# More Resources / Advanced Text Generation

- [https://huggingface.co/spaces/HuggingFaceH4/open\\_llm\\_leaderboard](https://huggingface.co/spaces/HuggingFaceH4/open_llm_leaderboard) Hugging Face LLM Leaderboard
- <https://huggingface.co/Salesforce/xgen-7b-8k-base?ref=blog.salesforceairesearch.com> XGen from Salesforce
- <https://huggingface.co/spaces/julien-c/nllb-translation-in-browser>

# HOMework

# Homework

- Form groups of 2 students
- Explore the use of at least 2-3 of the text generation tools presented in class
- Create an artwork, story, script, idea, essay, etc.. related to your interests / topic for the course
- This work should be able to be presented as a standalone project, but should ideally contribute towards the development of your final project
- Presentation format is open to student preference, but must be limited to 5 minutes to allow time for feedback from crit advisors
- Groups are expected to complete the assignment collaboratively, sharing one presentation (presenting 2 separate projects is not allowed)