Contextualising Presentation

Patterns. Acting in complex environments

05.05.2026, Seoyeon Lee

TAPE (Working title)

Installation

This installation explores audio from an **analog cassette tape**.

The sound, mixed with unstable noise, is analyzed through **machine learning**,

and a machine learning–generated voice responds to this audio.

At the same time, the learning process of the model is visualized

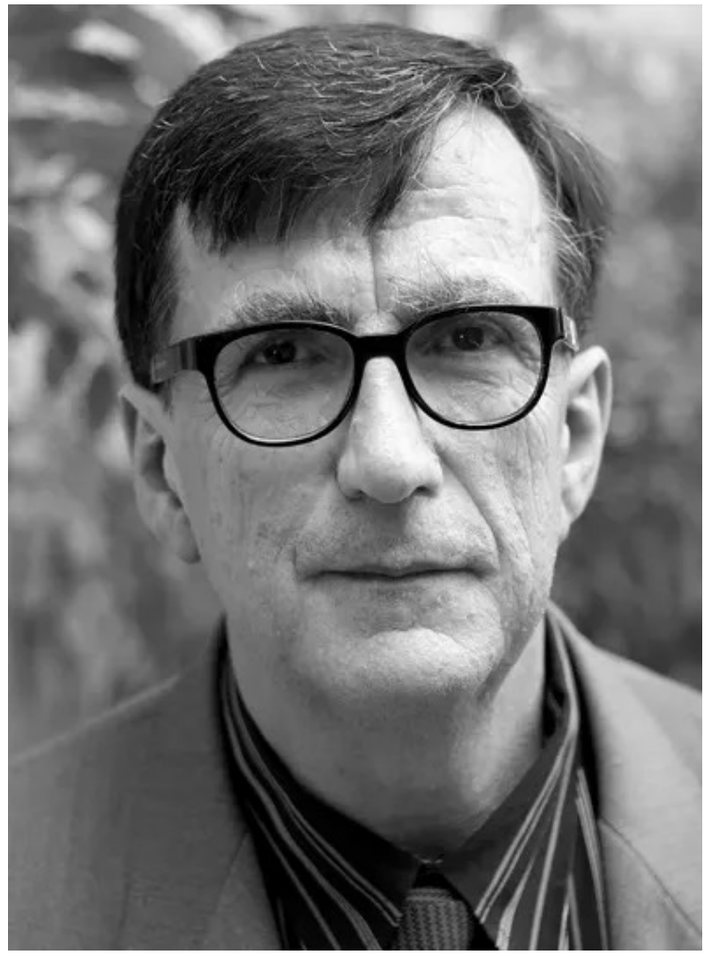
using **extracted audio vector data**.

The visualization is created with Houdini, while a PCB system is used to control

both the cassette tape and the AI-generated sound.

: Data Visualisation, Analog Audio , Machine Learning

Bruno Latour



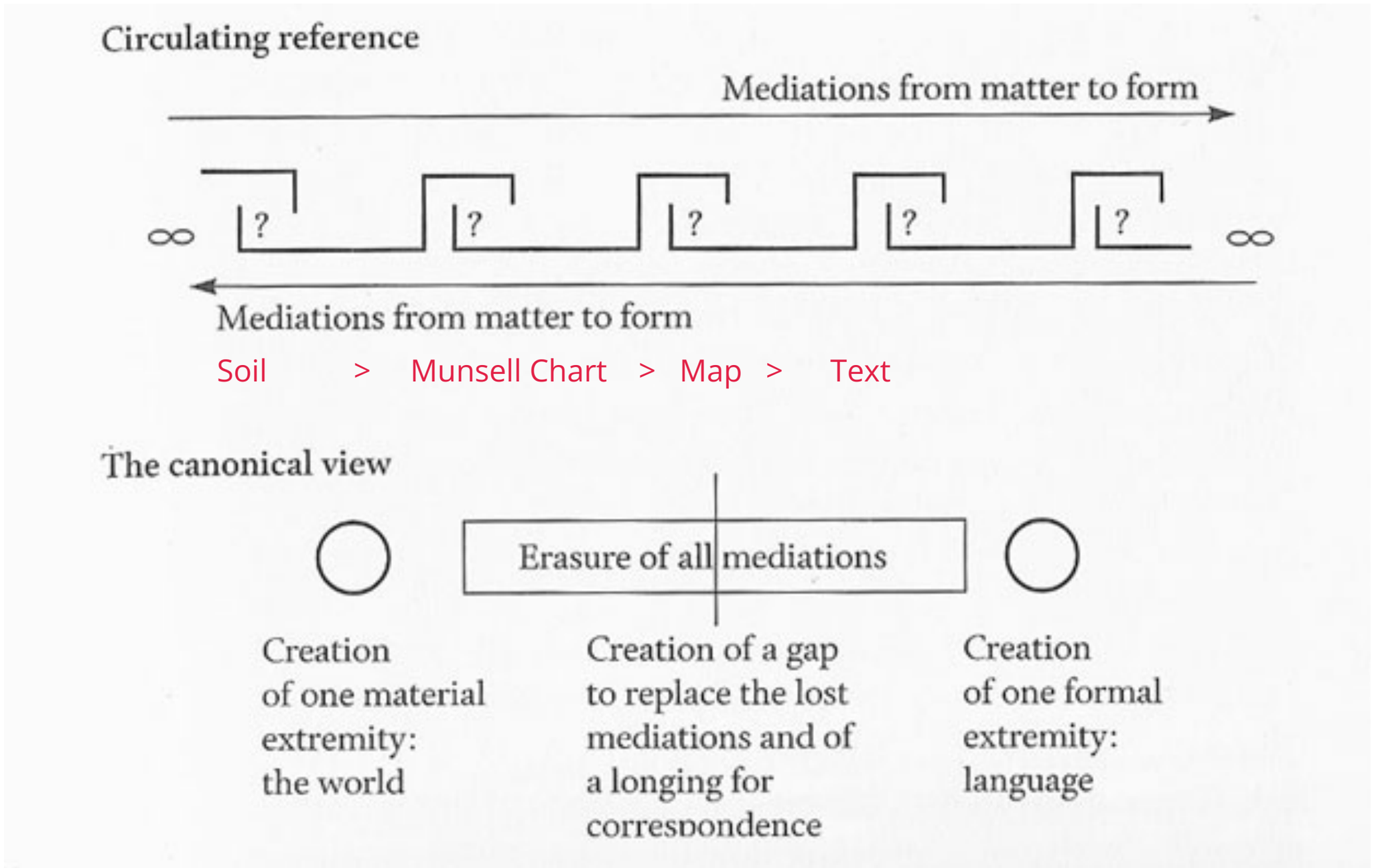
This French philosopher and sociologist.

Studied how scientific knowledge and data are constructed

Introduced the concept of **“circulating reference”.**

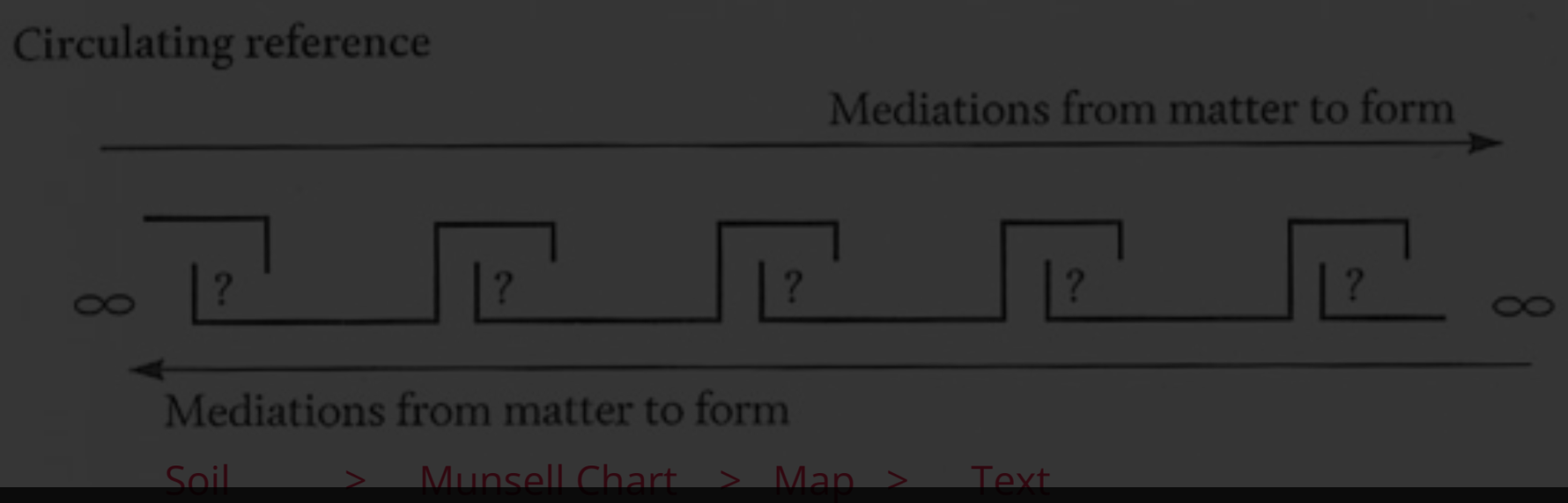
Focuses on transformation rather than fixed truth.

: Bruno Latour, “Circulating Reference: Sampling the Soil in the Amazon Forest.” In Pandora’s Hope, 1999.



Bruno Latour, Circulating Reference, https://larvalsubjects.wordpress.com/2009/07/25/circulating-reference/

Data undergoes a process of reference through which it is transformed and represented in different forms. Although the form changes, it continuously refers to the same source.
By tracing this process back, it can be reconnected to its original context.



Latour suggests that reference is maintained through transformations.

However, in contemporary machine learning systems, data is repeatedly reproduced within the model, causing reference to shift from the original source toward the model's own outputs.

In this sense, the mode of reference itself is changing.

Bruno Latour, Circulating Reference, https://larvalsubjects.wordpress.com/2009/07/25/circulating-reference/

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Leon Etienne Kühr & Ting Chun Liu

How all of our feedback system works

Image to Image variations as example


```
m = AI('img2img_stablediffusion')
For i -> 1000:
     i++
     image = m.run(img=image)
     image.save(“image.png”)
```

Video: https://media.ccc.de/v/37c3-12125-self-cannibalizing_ai#t=3

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Problem 1: Biased Data

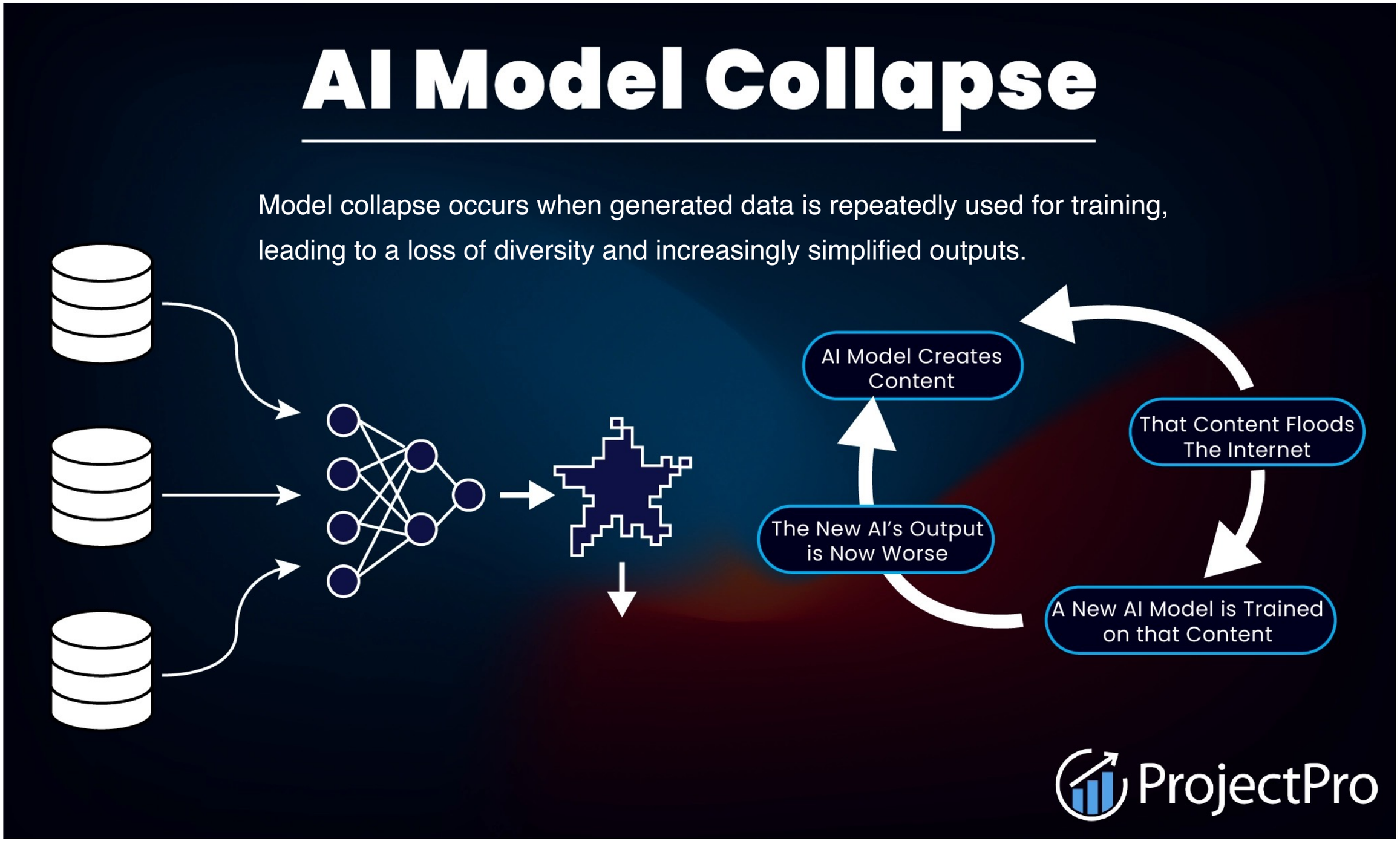
AI systems are trained on filtered and limited datasets.
As a result, they do not represent reality as a whole,
but only a selected version of it.

Problem 2: Pattern, not Meaning

AI does not understand meaning.
It learns statistical patterns between data,
often producing correlations without real significance.

Problem 3: Model Collapse

When AI-generated data is reused for training,
errors accumulate and diversity decreases.
Over time, the output becomes simplified and distorted.



This diagram shows how model collapse occurs.
As generated content is repeatedly used for training,
the model gradually drifts away from the original data and the quality deteriorates.

Source: https://www.projectpro.io/article/ai-model-collapse/1177

Experimental Case Study

```
Loaded as API: https://lsylet-qwen-qwen-image.hf.space ✔
Connected to broker!
Subscribed to noga
I'm: "seoyeon"
[MQTT] Received → Topic: noga | Payload: b'Autumn mountain temple with flowing stream'
[MQTT] Queuing task for prompt: Autumn mountain temple with flowing stream

[Worker] Processing prompt: Autumn mountain temple with flowing stream

Generating image for the prompt: Autumn mountain temple with flowing stream

Saved to: /Users/seoyeon/Documents/temp_project/output.webp
```

```
Analyzing image and generating new prompt...

Generated Prompt: Autumn mountains with cascading waterfalls and pagodas.
```

[Worker] Processing prompt: Autumn waterfalls cascade through misty temples.

Generating image for the prompt: Autumn waterfalls cascade through misty temples.

Saved to: /Users/seoyeon/Documents/temp_project/output.webp

Analyzing image and generating new prompt...

Generated Prompt: Misty waterfall cascades through autumn forest with traditional pavilions.

[Worker] Published to seoyeon
[MQTT] Received → Topic: noga | Payload: b'Autumn waterfalls with vibrant red and gold foliage.'
[MQTT] Queuing task for prompt: Autumn waterfalls with vibrant red and gold foliage.

[Worker] Processing prompt: Autumn waterfalls with vibrant red and gold foliage.

```
Generating image for the prompt: Autumn waterfalls with vibrant red and gold foliage.

Saved to: /Users/seoyeon/Documents/temp_project/output.webp
```

```
Analyzing image and generating new prompt...

Generated Prompt: Autumn waterfall surrounded by fiery red and gold leaves

[Worker] Published to seoyeon
^CTraceback (most recent call last):
  File "/Users/seoyeon/Documents/temp_project/main-mqtt.py", line 136, in <module>
    mqtt_client.loop_forever()
  File "/Users/seoyeon/Documents/temp_project/.venv/lib/python3.12/site-packages/paho/mqtt/client.py", line 2297, i
n loop_forever
    rc = self._loop(timeout)
```

Conclusion

Tracing Collapse in Sound

Bias and collapse are already evident in image generation.

But what happens in **sound**?

Traces are the result of time, but for AI, they are merely noise.

Through **repeated training**, reference shifts away from the original source

and moves toward a **self-referential structure**.

This work questions whether AI can imitate not only signals,

but also **“aging”** and the traces of time.