

become rotten

create medium to rotten digital data

by sol sarratea - she/her

What if we could provide a medium for digital data to become rotten ?

Could our interactions influence this degradation ?

Would our social

relationships built upon internet connections become more organic ?

Project aims to provide digital data a medium to become rotten, or just a continuous glitch. Through computing **feedback systems** inspired by nature and life cycles.

The idea is to have a scene/canvas and directory of different algorithms under the concept of rotting.

It has 2 composable stages:

- Single user interaction: mixing algorithms. This creates an inner feedback loop with their scene.
- Network interaction: Use peer to peer connections to have general context in where users' interactions will be affecting each other. Context will be the outer feedback loop.

IDEA OF DEMO:

Explanation of feedback systems.

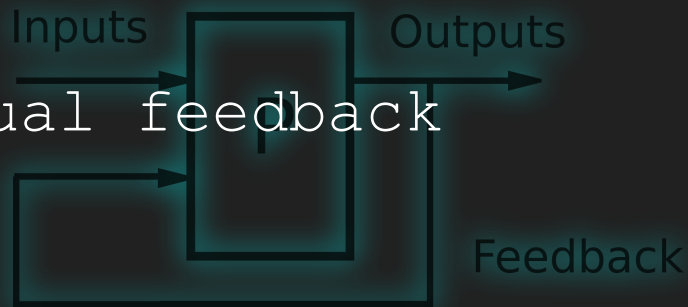
walkthrough the batch

- Ideas to become a strange loop (multi-feedback system)
- Show stages of "Becoming rotten"

Chat/view WIP

feedback system

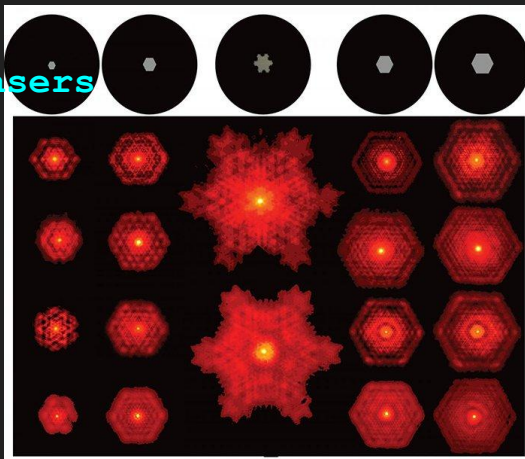
+ visual art = visual feedback



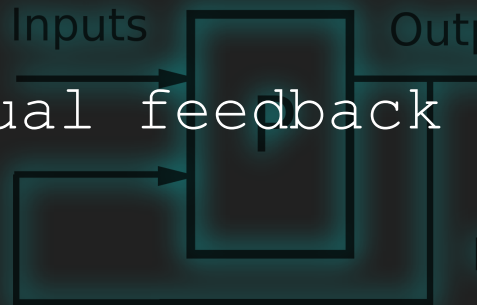
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fractals from lasers

The way it's done is to use the way laser light cycles back and forth, bouncing between mirrors and repeating light on to itself, to mimic the repeating patterns of fractals in nature.



feedback system
+ visual art = visual feedback



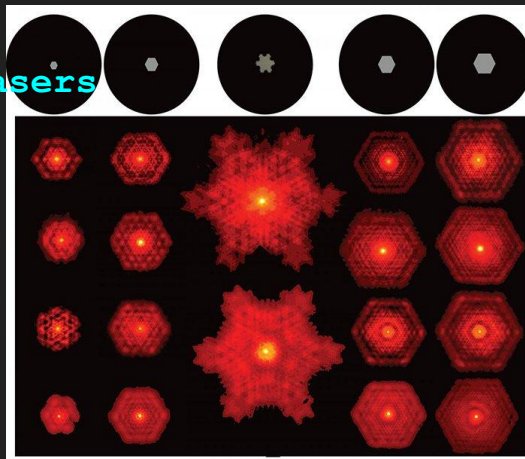
An example is Queen's music video for "Bohemian Rhapsody" (1975). The effect (in this simple case) can be compared to looking at oneself between two mirrors.



VIDEO FEEDBACK

fractals from lasers

The way it's done is to use the way laser light cycles back and forth, bouncing between mirrors and repeating light on to itself, to mimic the repeating patterns of fractals in nature.



video feedback **Concepts** by Douglas Hofstadter

...Both in video feedback and in this [*] mathematical system, a very simple looping process **gives rise to** a family of truly unanticipated and incredibly intricate swirling **patterns**.

PATTERNS AS CAUSE

[*] <https://solquemaal.com/shaders/2020/03/23/fractals-2d.html>

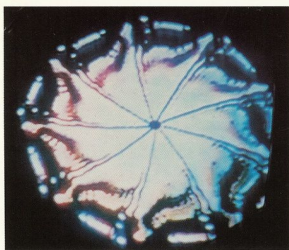


Plate 1. Equilibrium image.

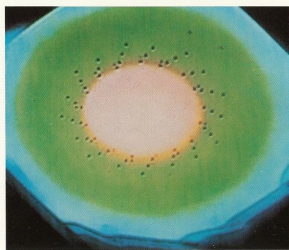


Plate 2. Snapshot of a limit cycle.

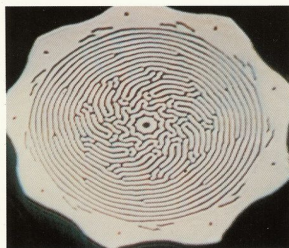


Plate 3. Dislocations.

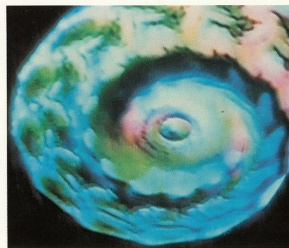


Plate 4. Logarithmic spiral.

VIDEOFEEDBACK \Leftrightarrow FRAME BY FRAME

iterative map that is performed on each pixel in a frame that then generates each pixel for a new frame.



video feedback

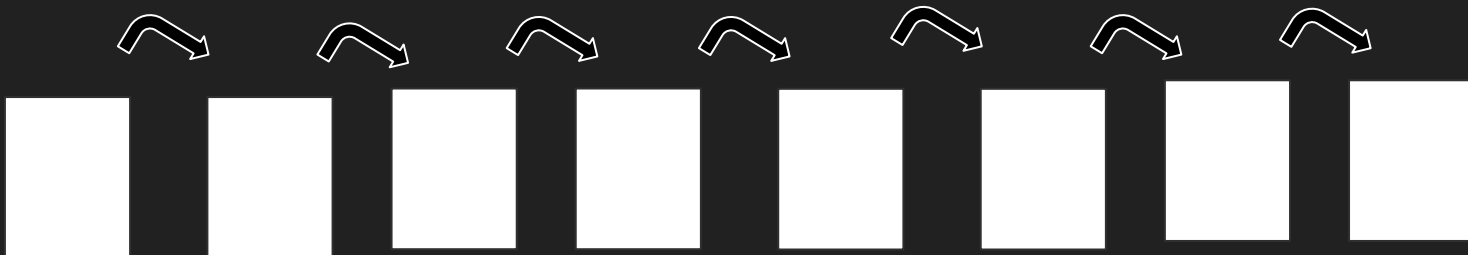
Concepts by Douglas Hofstadter

"As might be expected, all the unexpected phenomena that I observed depended on the nesting of screens being (theoretically) infinite – that is, on the apparent corridor being endless, not truncated...

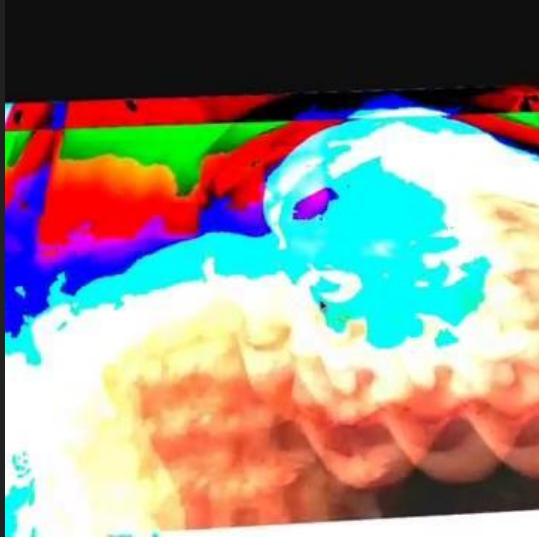
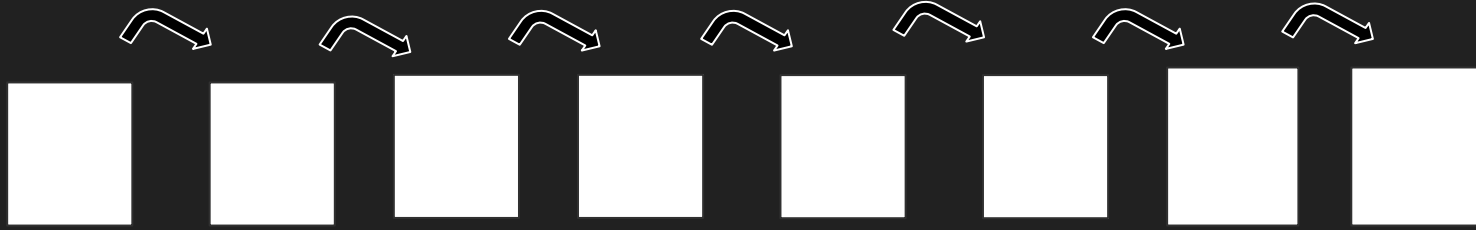
COMPUTING INFINITE NESTED SCREENS ? !!

KEYWORD: DISCRETE TIME

discretization(INFINITE NESTED SCREENS) = SEQUENCE OF FRAMES

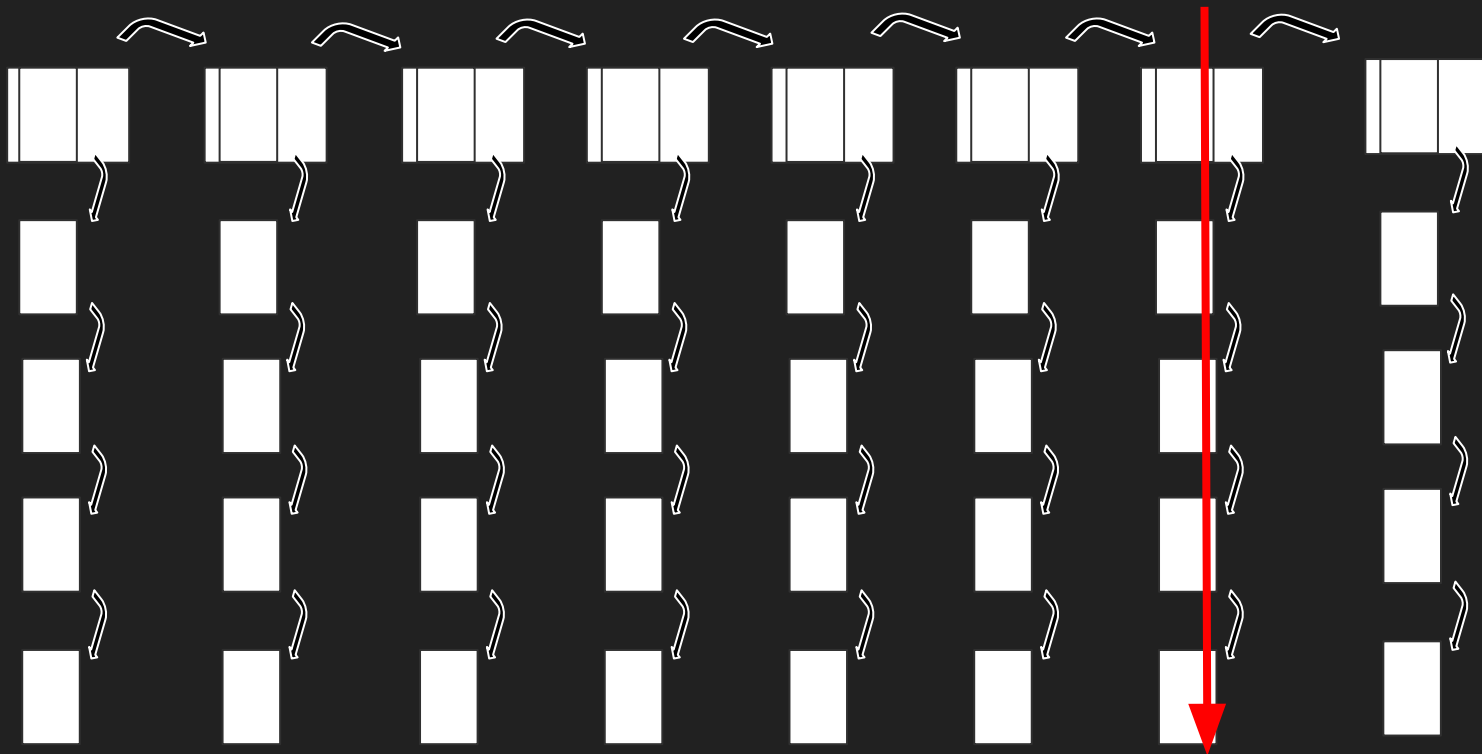


examples - diffusion:

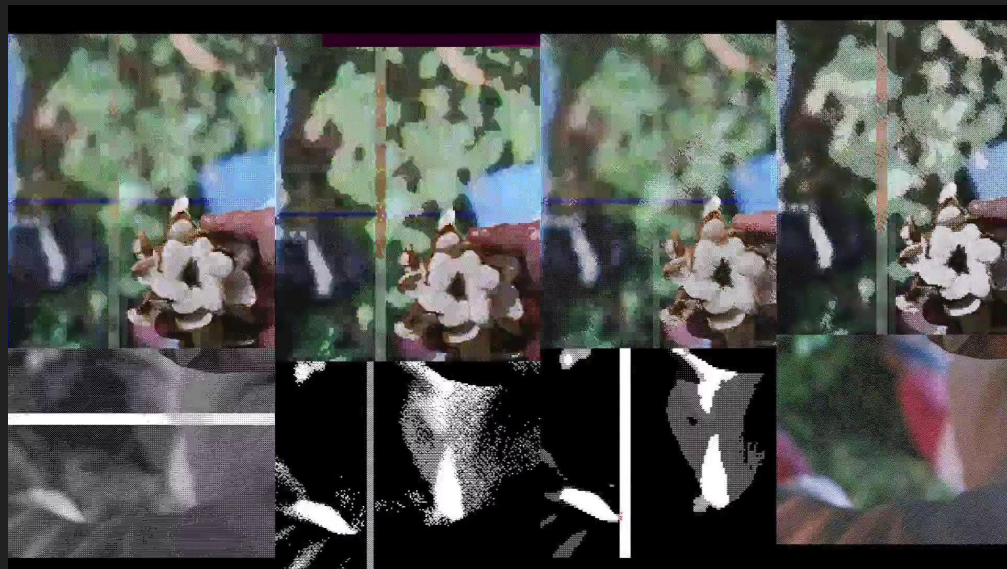
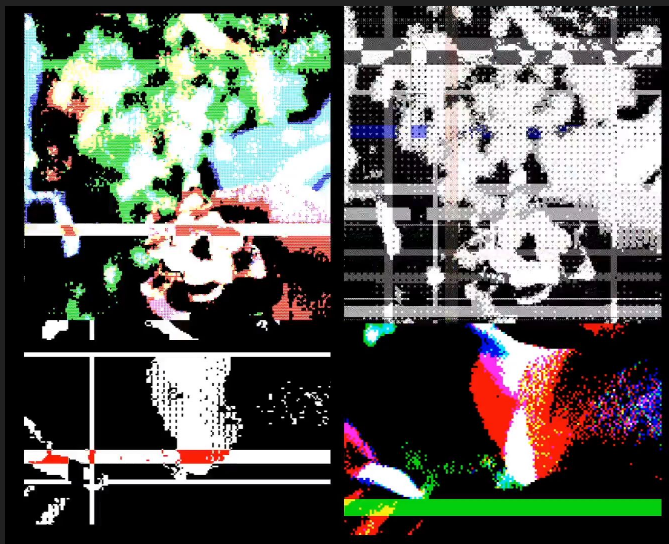
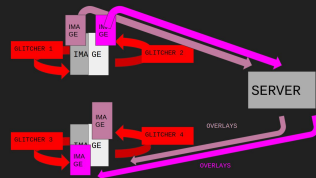
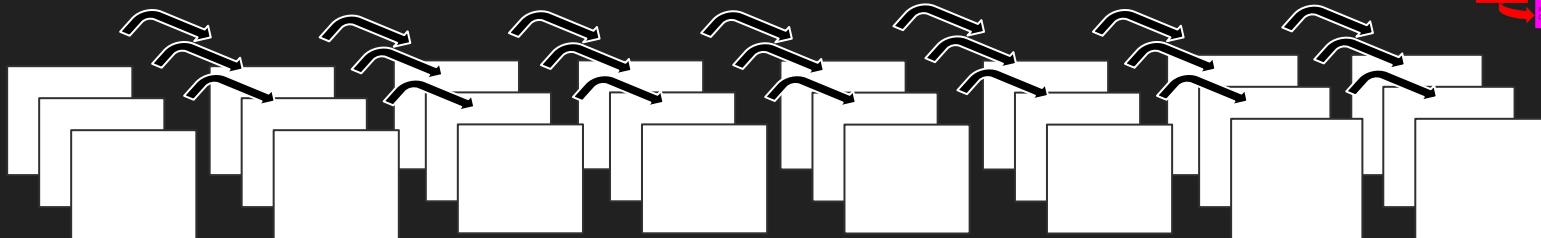


towards strange loop video feedback:

A **strange loop** is a **cyclic** structure that goes through several levels in a **hierarchical** system.



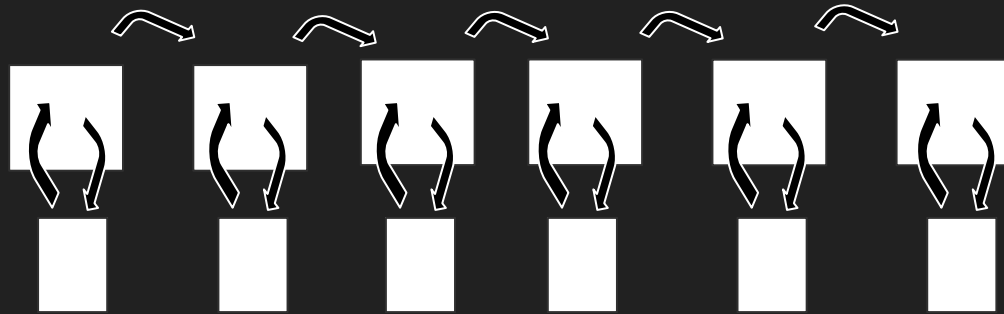
Use internet to have multiple-states of same canvas:



LETS GO BACK !

and build strange loop from simple steps

example i- reaction diffusion



ping pong buffers

steps :

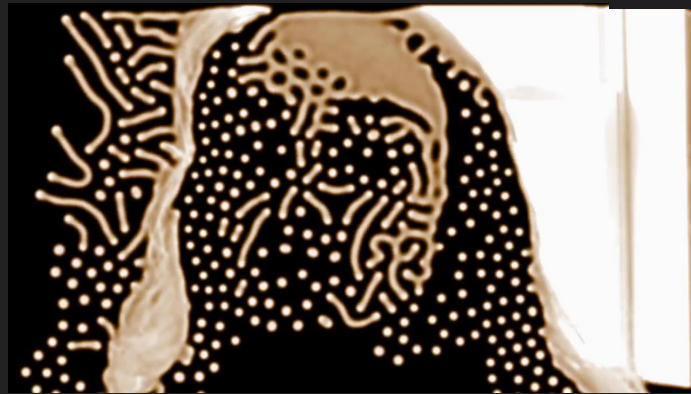
Main scene

texture ping

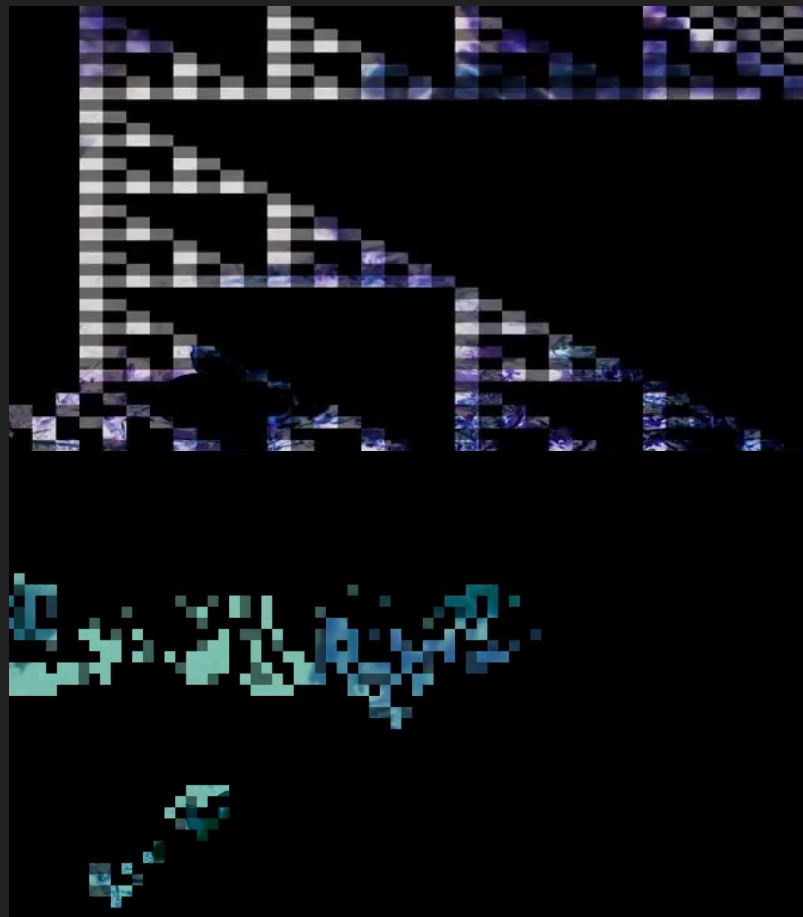
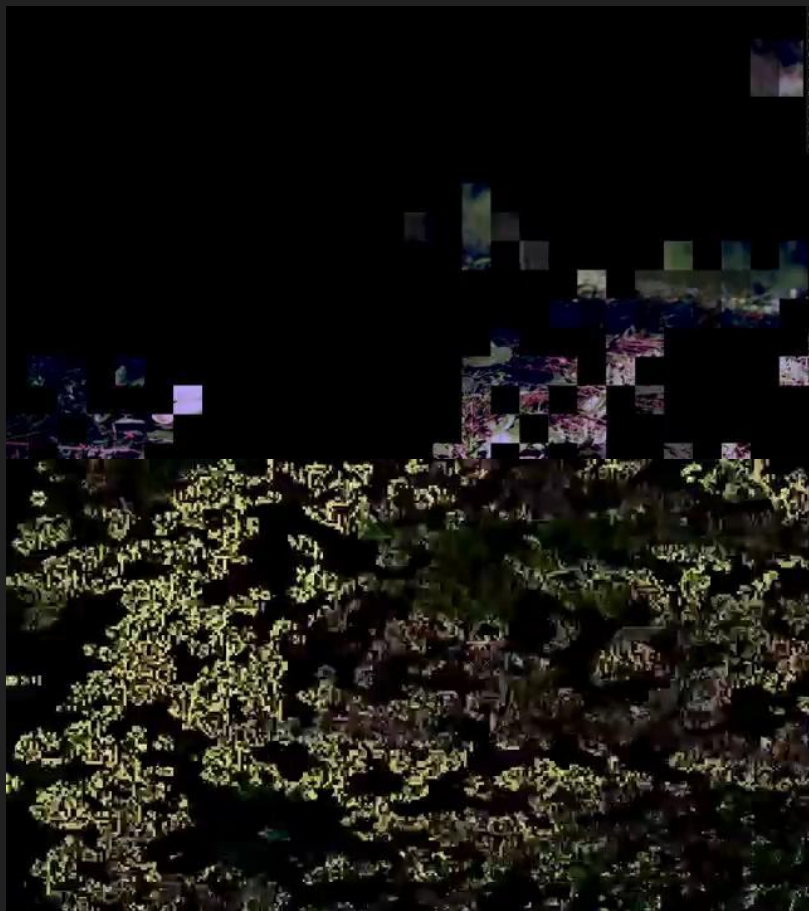
temp

Buffer Scene

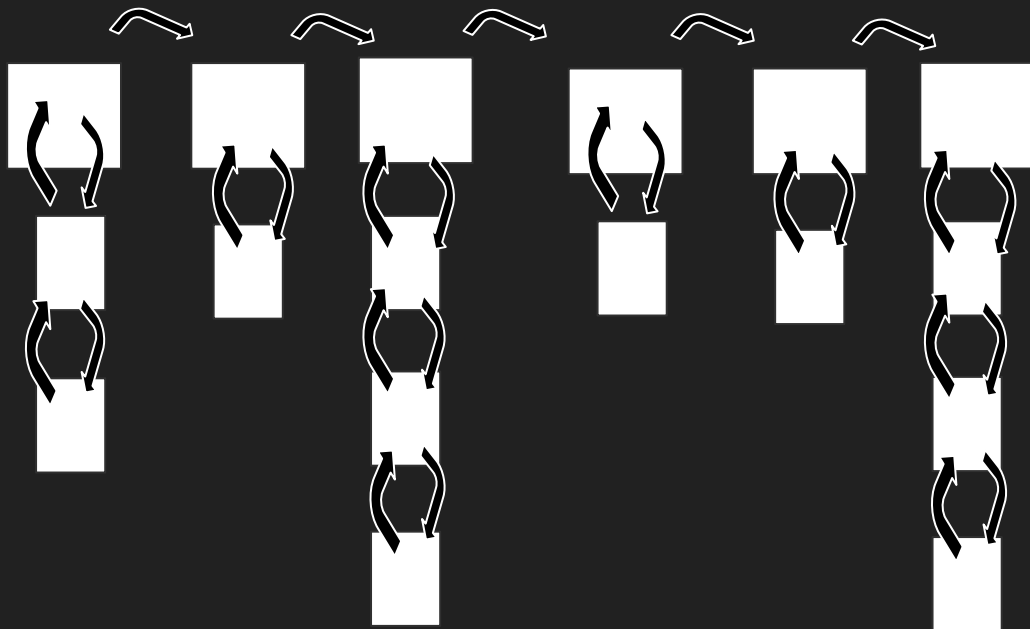
texture pong



example ii - Game of life



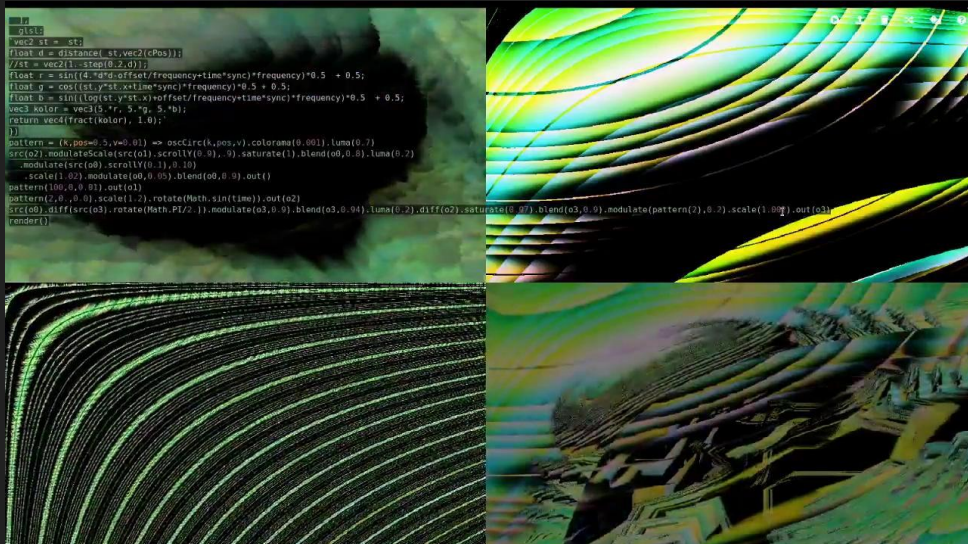
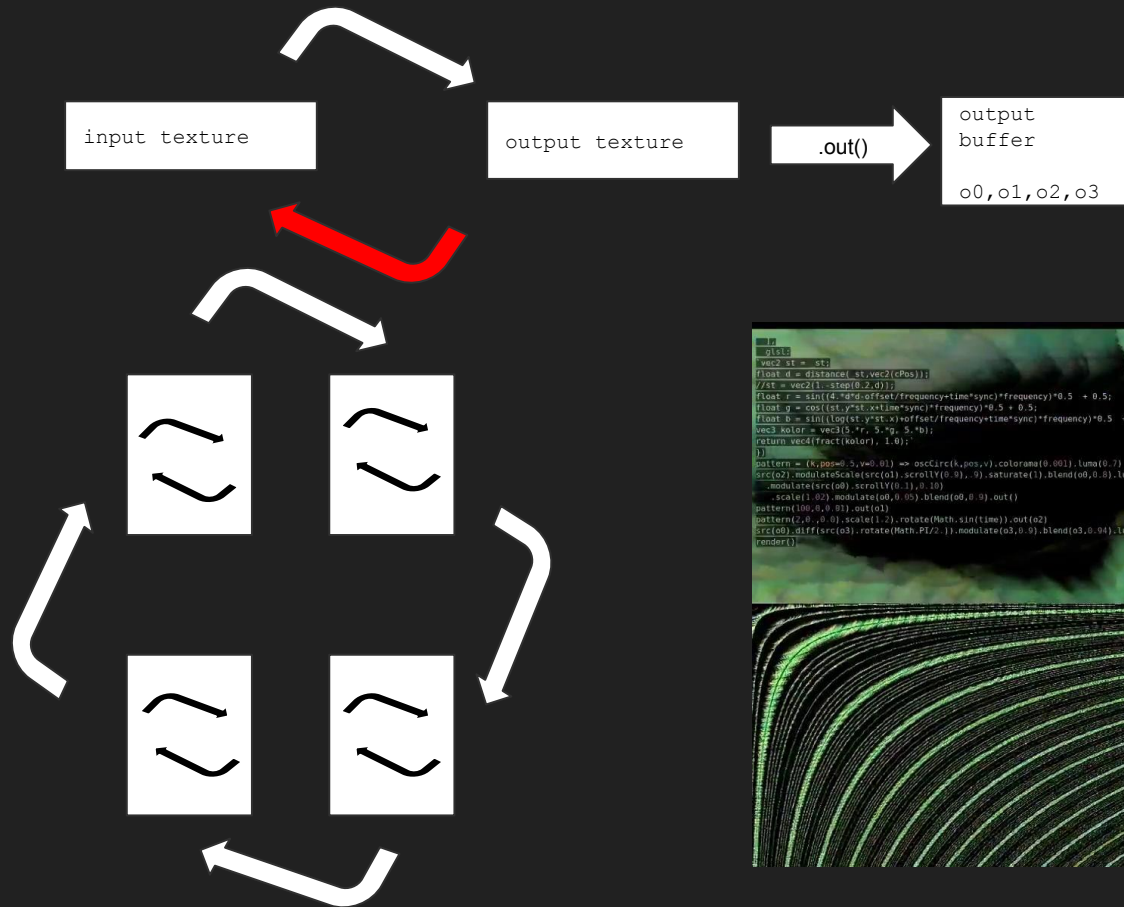
We have this:



only black
arrows...

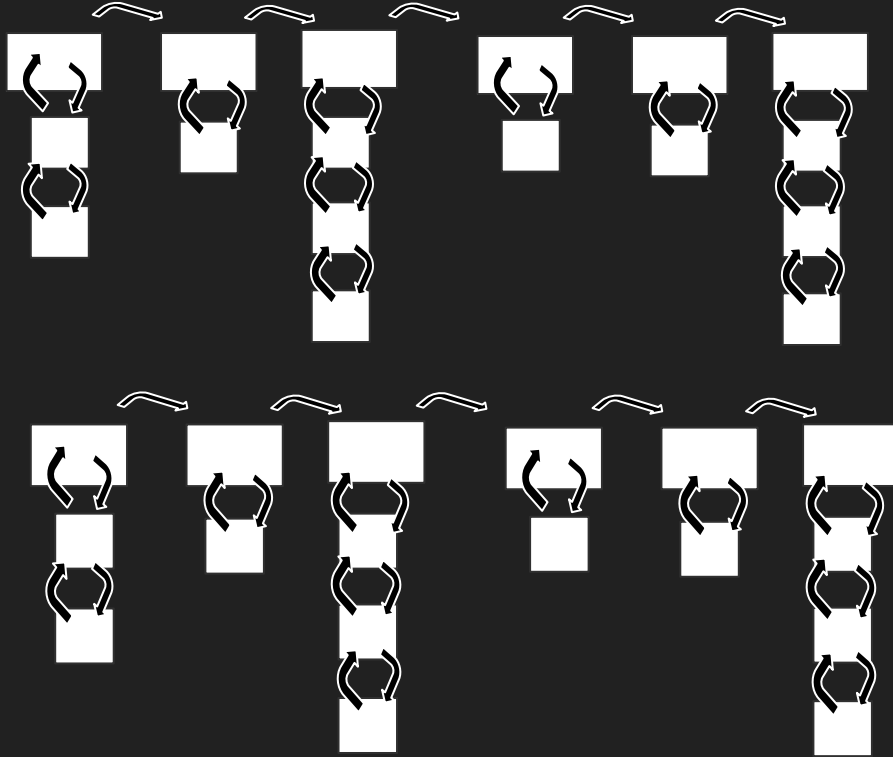
TODO:
-color arrows!
[combine
algorithms]

HYDRA proof of concept



fun fact discovering smooth Game of life

different algorithms



same pattern

→ neural networks time

interest : <https://arxiv.org/abs/2004.06874>