

Generative Design

How to Think about the Concept

First thing first:

Ask yourself.....What type of project I would like to create?

data visualization, interactive, working with images, creating graphic design tool, with sound etc.

The most important thing is to come up with the concept.

Just tell a story

Viewers do not really care about the programming complexity, they want to see or hear your story!

Data-driven art is an emerging form of art that utilizes data and technology as a medium for creating and expressing ideas.

**Everything is
data**

Examples / Data

Renaissance painters used egg white to link pigments on the canvas. In my artistic practice, data has replaced colors, but I still need a binding agent: the network. I want to bring it to life in the most expressive way possible. Put differently, data storytelling is at the heart of what I do.

Kirell Benzi **On Time**

the analysis of 42 million pedestrian positions in the Lausanne train station. Studying how users move in the station helps develop strategies to improve their commute. From human to algorithm and back to human: we've come full circle.

<https://www.kirellbenzi.com/data-art-manifesto>

Examples / Data



McCormack Fifty Sisters

a series of images algorithmically “grown” from computer code using artificial evolution and generative grammars. Each plant-like form in the series is derived from deconstructed graphic elements derived from oil company logos.

The title of the work refers to the original “Seven Sisters”—a cartel of seven oil companies that dominated the global petrochemical industry and Middle East oil production from the mid-1940s until the oil crisis of the 1970s.

“I use evolutionary algorithms to create artificial life forms that would be almost impossible to design directly.”

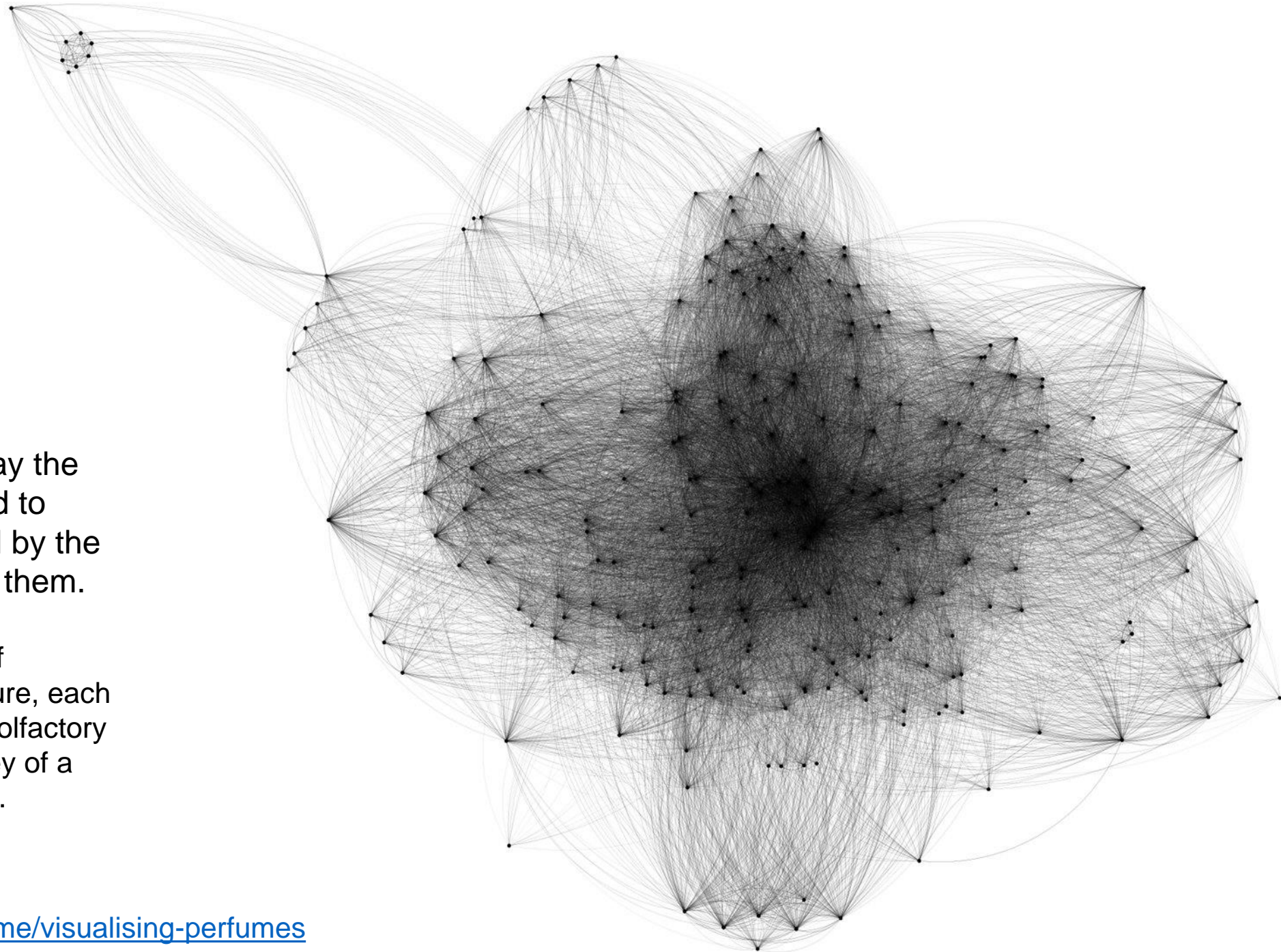
<https://aiartists.org/generative-art-design>

Examples / Data

Tiziana Alocci **Scented Connections**

These thirty artworks portray the network of ingredients used to create a scent, as provided by the artisans who so finely craft them.

Inspired by the intricate web of relationships and forms in nature, each portrait represented a unique 'olfactory fingerprint,' charting the journey of a fragrance from creation to use.



Data Visualization

What can it talk about?

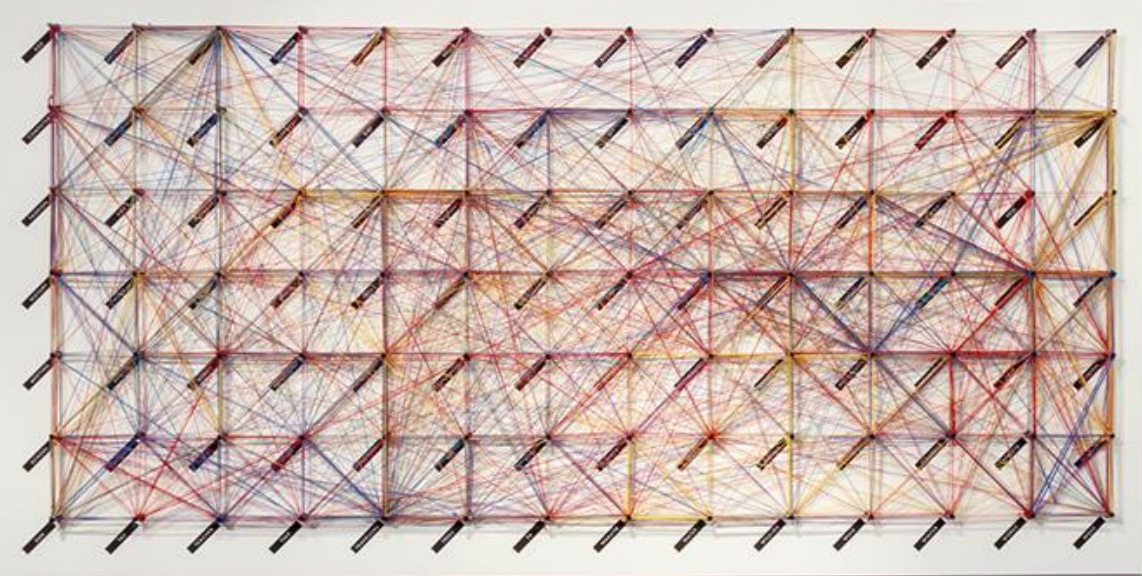
Cultural Reflection: Generative art also holds a mirror to society by using datasets that represent cultural behaviors and trends. For instance, social media data can reveal public sentiment, trends, or even misinformation patterns.

Art as Advocacy: Data-driven generative art has the potential to be a tool for advocacy, bringing awareness to critical issues like climate change, inequality, or political unrest.

Etc...

Examples / Interactive

WHAT MADE ME



WHAT MADE YOU?

Help us discover what shapes the people of Birmingham by taking part in the creation of this data map.

To participate, choose one or more coloured threads and answer questions below by connecting relevant words together.

Through this visual language, you can share your feelings, influences, thoughts and inspirations, which made you the person you are today.



Dorota Grabkowska WHAT MADE ME

What made you Think?
What made you Create?
What made you Angry?
What made you Happy?
What made you Change?

Each question was assigned to a different colour and could be answered by connecting relevant words together with a coloured thread.

Intrraction – the viewer matters

Interactive environments are a defining feature of generative art installations. **These spaces respond to the movements and actions of viewers, making them active participants in the art.**

Physical computing plays a crucial role in generative art installations, involving the use of microcontrollers, sensors, and actuators. Platforms like Arduino and Raspberry Pi are commonly used to integrate physical elements with digital systems.

Examples / Interactive / Visual Input Manipulation



Man Ray
Rayographic Image
cca 1922



RAY

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影
2021



Live Streaming of
Audiences Captured By
A Camera Set In The
Art Installation

Weidi Zhang **RAY**

Interactive
AI Art Experience and
Experimental Data
Visualization

In this piece via a camera situated above the work, RAY observes participants and authors the live-streamed data into "... a novel semantic Rayograph that evolves in real-time.

Real-time Visualization
Generated by RAY based
on observations of live
streaming data

**Takram
Robotic Shadow**

In order to design robots that will coexist with human beings and enrich human lives, a sensor technology for “feeling” human will and gestures becomes necessary.

<https://www.takram.com/projects/robotic-shadow>



Examples / Interactive / Body Motion



NOTA BENE Visual In Order to Control

2023

Interactive Typographic
Installation

A text discussing about the threshold on ethics and morality was looping on the floor, people who step on the typographic area to read it, realize themselves on the wall and the interaction process starts.

Examples / Interactive / Haptic – through a physical object

Scenocosme : Grégory Lasserre & Anaïs met den Ancxt Membranes

Sound and interactive
sculpture with leathers

Membranes: A sensory
artwork made of
interactive leathers
“Membranes” is an
hybridization between
natural element and
digital technology.

The leathers react to the electrostatic
contacts of the human body. Each contact
produces scalable sounds, depending on
the quality of the approach and depth of the
contact.

Examples / Sound

JAMES FRANCIES X BEN HEIM SEEING SYNESTHESIA, A SOUND PAINTING

The work explores the phenomenon of synesthesia, as experience by Francies. simulation to produce a sound painting that serves as a visual representation of what goes on in Francies head as he experiences and performs music.



Make invisible visible
Listen to picture
View the sound
Move the mountains
Create picture out of writing
See old picture and see them differently
Translate speech to other sounds
Make artificial nature
Look at the fine art and make reference
Make music visible
Think how to portray a conversation
Make brush controlled by movement

Do not be afraid to experiment!.....Yeah, it can go wrong but that is the part of the adventure!

Above all...have fun! If you are having good time creating stuff, viewers will see it and will enjoy your work as well!