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Overview

Modern Art Movements

Create an immerse and exhibitory experience showing famous paintings of nine modern art movements

Teach audiences the difference between various genres reflectively and enjoyfully

Famous Paintings

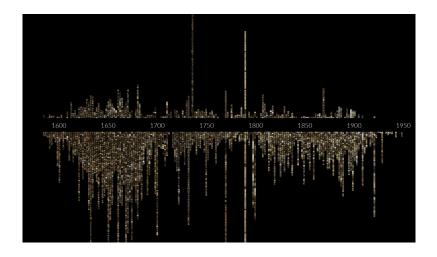
Make famous paintings more accessible to general population and attract their interest

Introduce stories of each painting

Related Work

Inspired by the museum project from last semester and data viz research online

http://vijks.com/





Questions

Duration of Art Movements

what's the time period of each art movement in modern art?

Difference among Genres

what's the difference in painting style and drawing content among nine art movements?

Stories of Paintings

What's the story artists want to tell in their paintings or what's the historic meaning of paintings?

Data - Sample



Name: Sunrise

Author: Claude Monet Created Time: 1872

Description: This painting became the source of the movement's

name, after Louis Leroy's article The Exhibition of the

Impressionists satirically implied that the painting was at most, a

sketch.

Dimension: 18.9 in \times 24.8 in (48cm \times 63cm) (width * height)

Link to the dataset: https://drive.google.com/file/d/1QeV1EbKSq EStdgtgN7pwnPL9XMRKq7b/view?usp=sharing

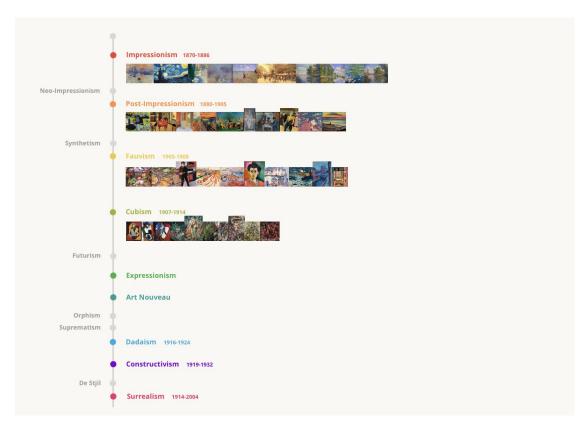
Data - Data set

- 9 art movements from 1870 with 20 major work for each
 - Impressionism/Post-impressionism/Fauvism/Cubism/Expressionism/Dadaism/Const ructivism/Futurism/Surrealism
 - All are famous art movements in Modern Art
- Collected data
 - O Source: Wikipedia and, Museums and art gallery websites (e.g. MoMA), Google Art
 - Used python crawler

Link to the dataset: https://drive.google.com/file/d/1QeV1EbKSq_EStdgtgN7pwnPL9XMRKq7b/view?usp=sharing

Website: https://xxinnn.github.io/dataviz/index.html

Exploratory Data Analysis



WORKED WELL!

Organized paintings by genres and time sequence (from left to right)

- Paintings from different art movements looks distinguished visually
- In each art movement there are at least 20 famous paintings that has detailed information.

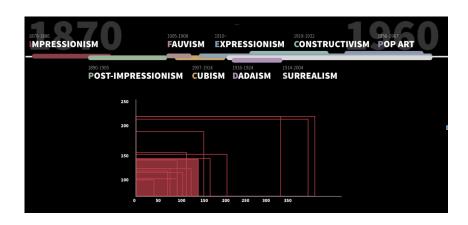
Exploratory Data Analysis

WORKED

Visualized canvas size

We firstly calculated the average canvas size of paintings in each art movement. But it could not tell a change based on time sequence. And considering the small data sample we used (20), the mean was not representative.

Inspired by the museum project last semester, we decided to use graph to visualize canvas size of each paintings. And compared with ones in different art movements.

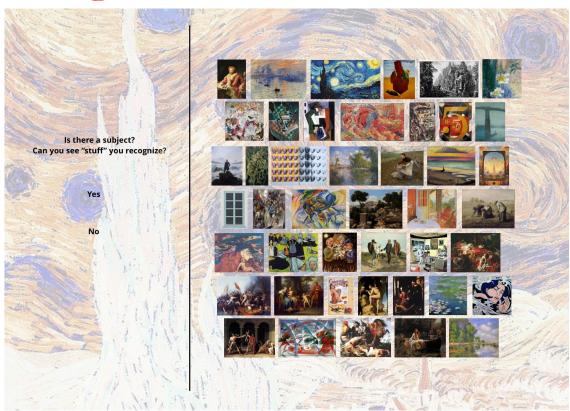


Exploratory Data Analysis

FAILED

- We also THOUGHT about using a geometric map to show the origins of each art movement and how it changes. However, 6/9 art movements came up in France. So we gave up this idea.
- We looked at the paintings collected but failed to find explicit law about color panels or brush sizes used in one genre.





Our first idea is clustering all paintings we got randomly and asking users to answer several predefined questions so the website can recommend their favorite style.

However the cluster is not really a data visualization and it did not help users to learn much.



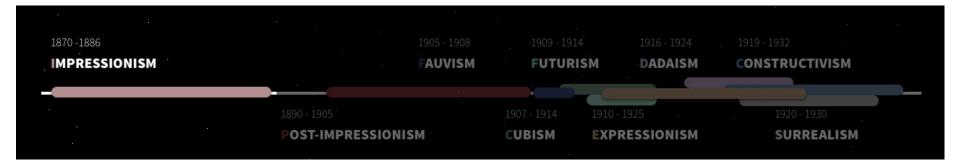
Another design idea is using a timeline to show the time periods of each art movements and employing single page to show every art movement.

And to make users more engaged, they could control the little girl move from left to right while the paintings show correspondingly and chronologically.

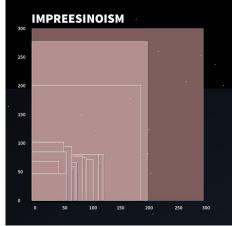


By limiting the paintings audience can see at once, we believe audiences can become more engaged, looking at the paintings carefully, so they can get a sense of how genre changes in different art movements.

We also listed the keywords and a brief description of each art movement to help audiences understand better.







In the whole website, we used consistent color coding to represent each art movement.

Implementation (Demo)

We used javascript and d3 to implement all our features.

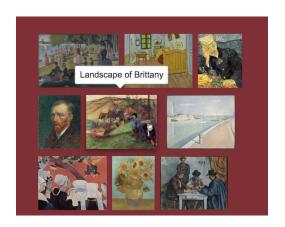
Timeline

On our homepage, we arranged the movements from 1870 to 1932. We then have a simplified timeline used as our navigation bar to let users jump to the movement they are interested in.

Tooltip

The tooltip shows the name of the artwork when audiences hover on each thumbnail.





Implementation

Detail page for each piece of artwork

The detail page shows a bigger image to the audience and tells the story of each artwork. We cropped the image with the same height.

User control

Audiences could control the girl by pressing the right key. She would walk along the timeline and also move on to the next movement. One row of the gallery would appear with her walking.

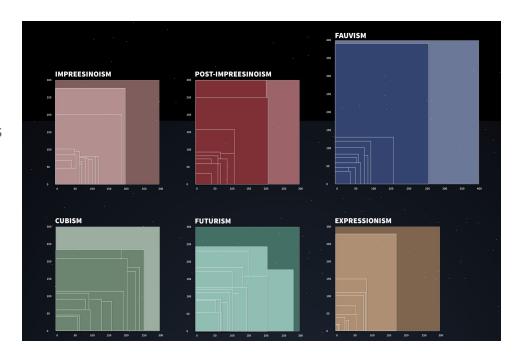




Implementation

Size charts for each art movement

We generated the canvas size charts for each movement and tried to find how canvas size changed both within and across the movements. The smallest size of painting gets smaller in later modern art movements such as expressionism, dadaism.



Evaluation

Duration of Art Movements

Explicit Timeline

- Homepage
- Navigation bar

Difference among Genres

Size Change Page

Gallery Pages

- Paintings (audience can understand the difference naturally by going through all pages)
- Keywords of each genre
- Brief Descriptions

Stories of Paintings

Detail Pages

Evaluation

Future work

- Reveal the difference among different genres more explicitly
 - o common colors? common subjects? ...
- Collect more data (now it is 20 for each)