Lecture 3b

DD 324:
Data Visualisation

Images as Data

14 Jan 2025 · Gyan Lakhwani · gyanlakhwani@gmail.com · Department of Design, DTU

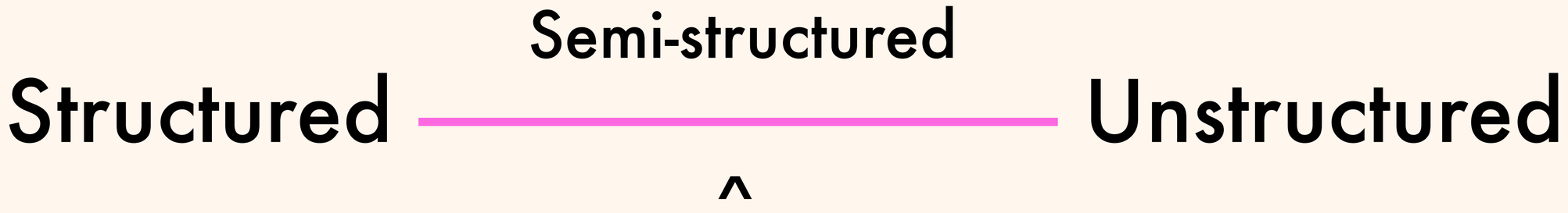
Data Models

Types of Data

Structured ——— Unstructured

Data Models

Types of Data



Structured or Unstructured?

Structured or Unstructured?

27 March 2020
1:07 PM

31 March 2020
3:27 PM

2 April 2020
4:58 PM

6 April 2020
6:07 PM

What structured information could you extract from these?

27 March 2020
1:07 PM

31 March 2020
3:27 PM

2 April 2020
4:58 PM

6 April 2020
6:07 PM

Visualising...
visual information?

How?

Photoviz

Rasagy Sharma

Design Lead, DataLabs at Capital One

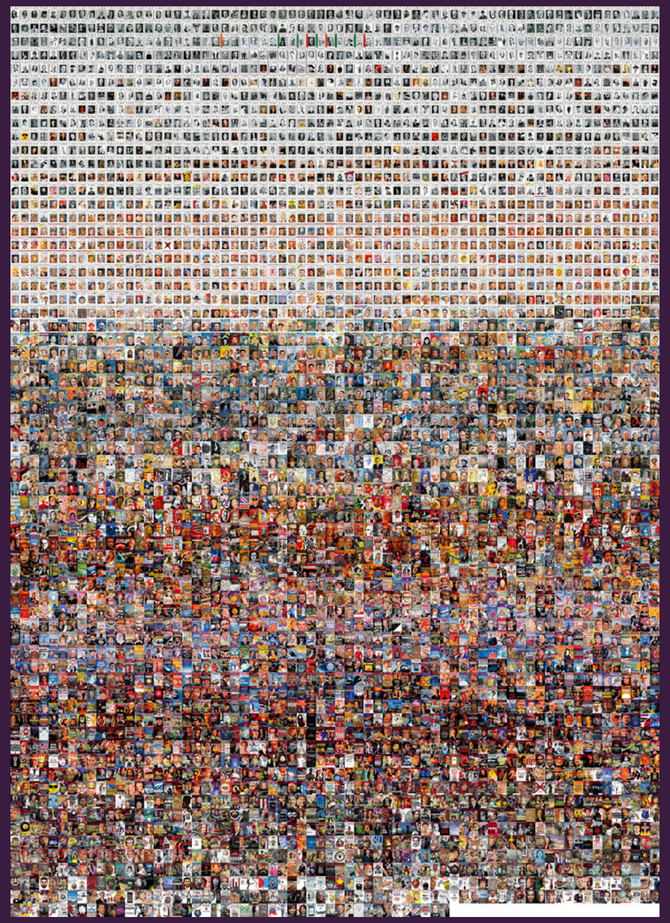
TIME

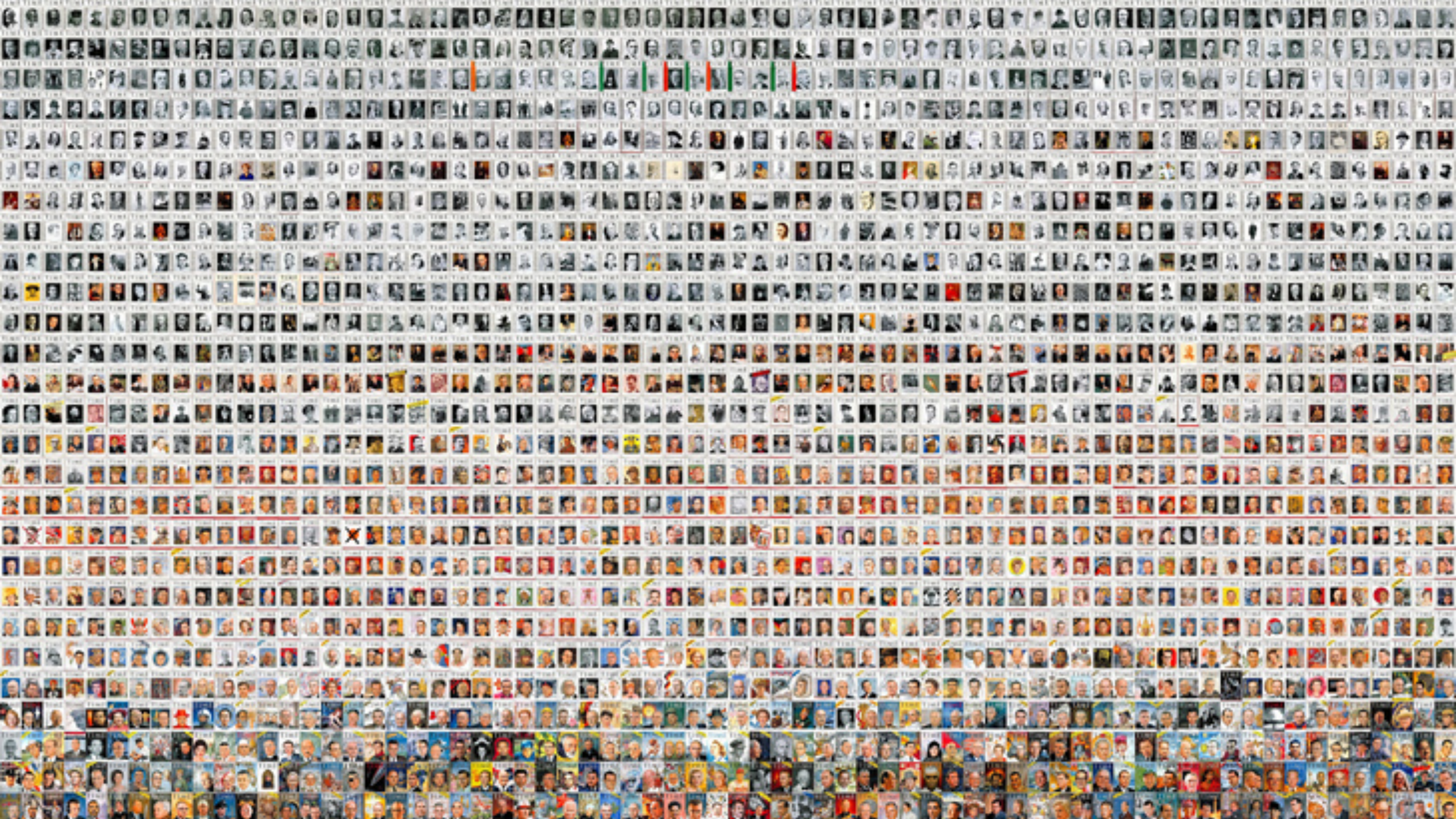
Magazine

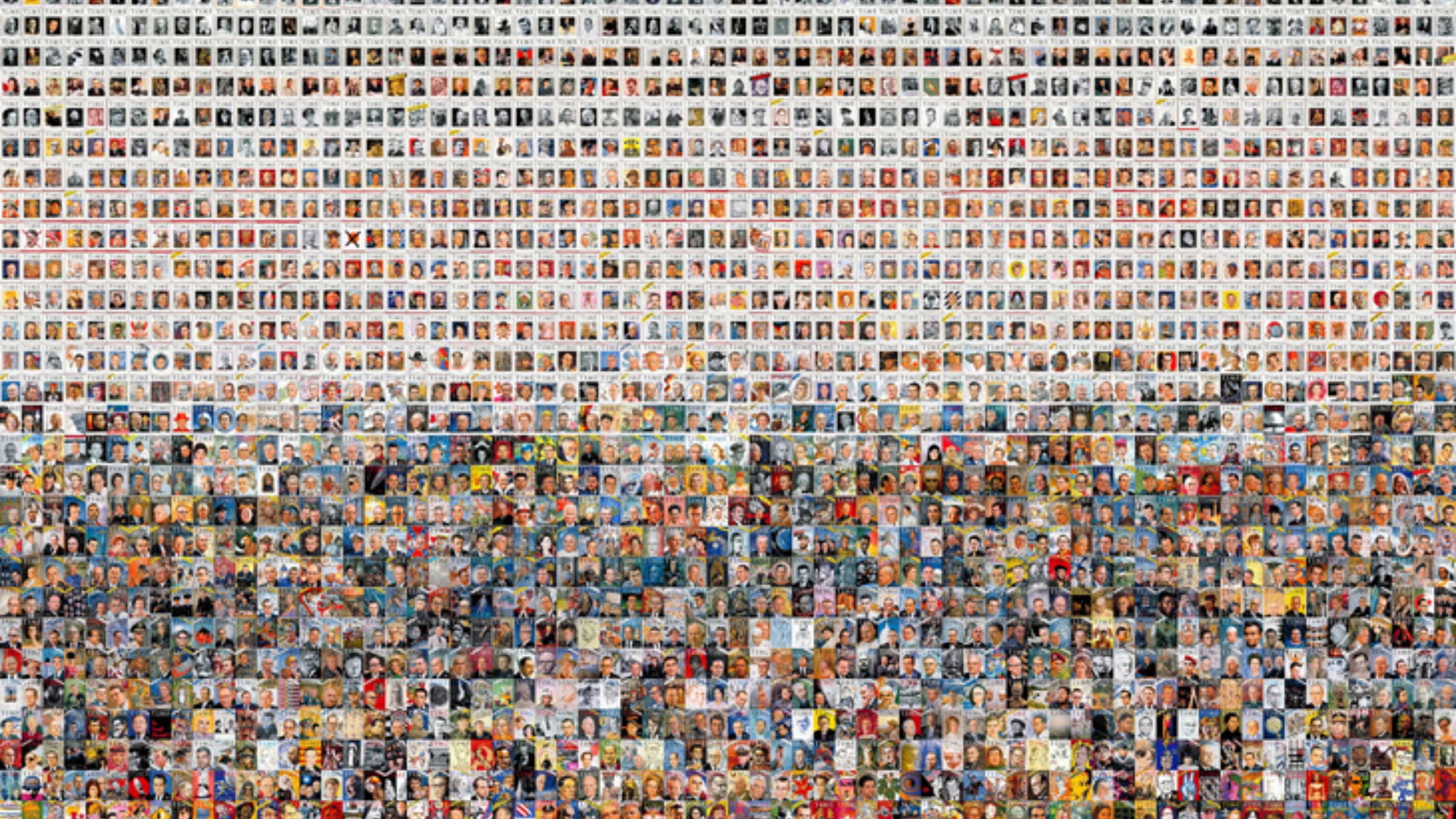
First published 1923

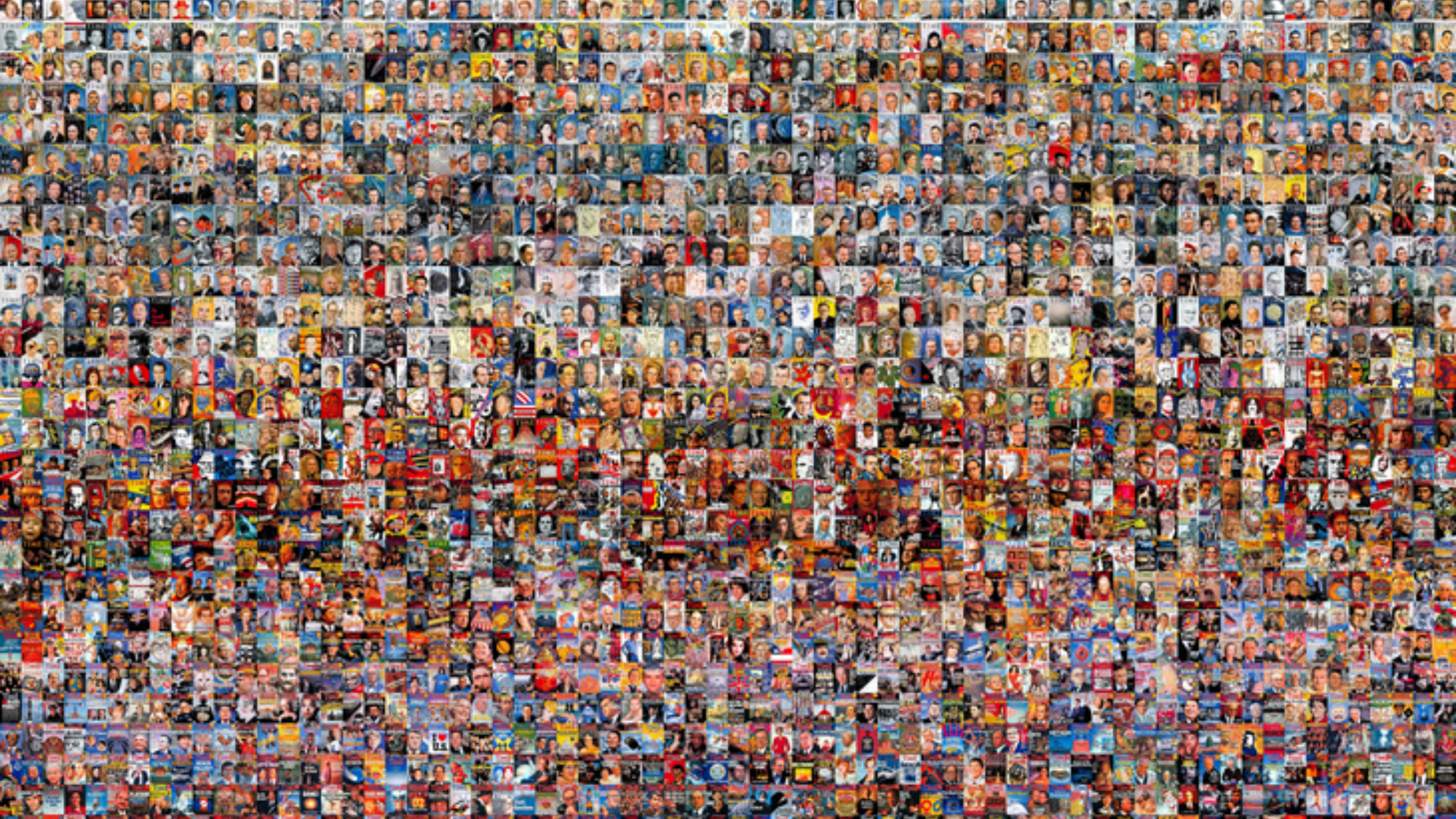
Timeline: 4535 Time Magazine Covers, 1923-2009

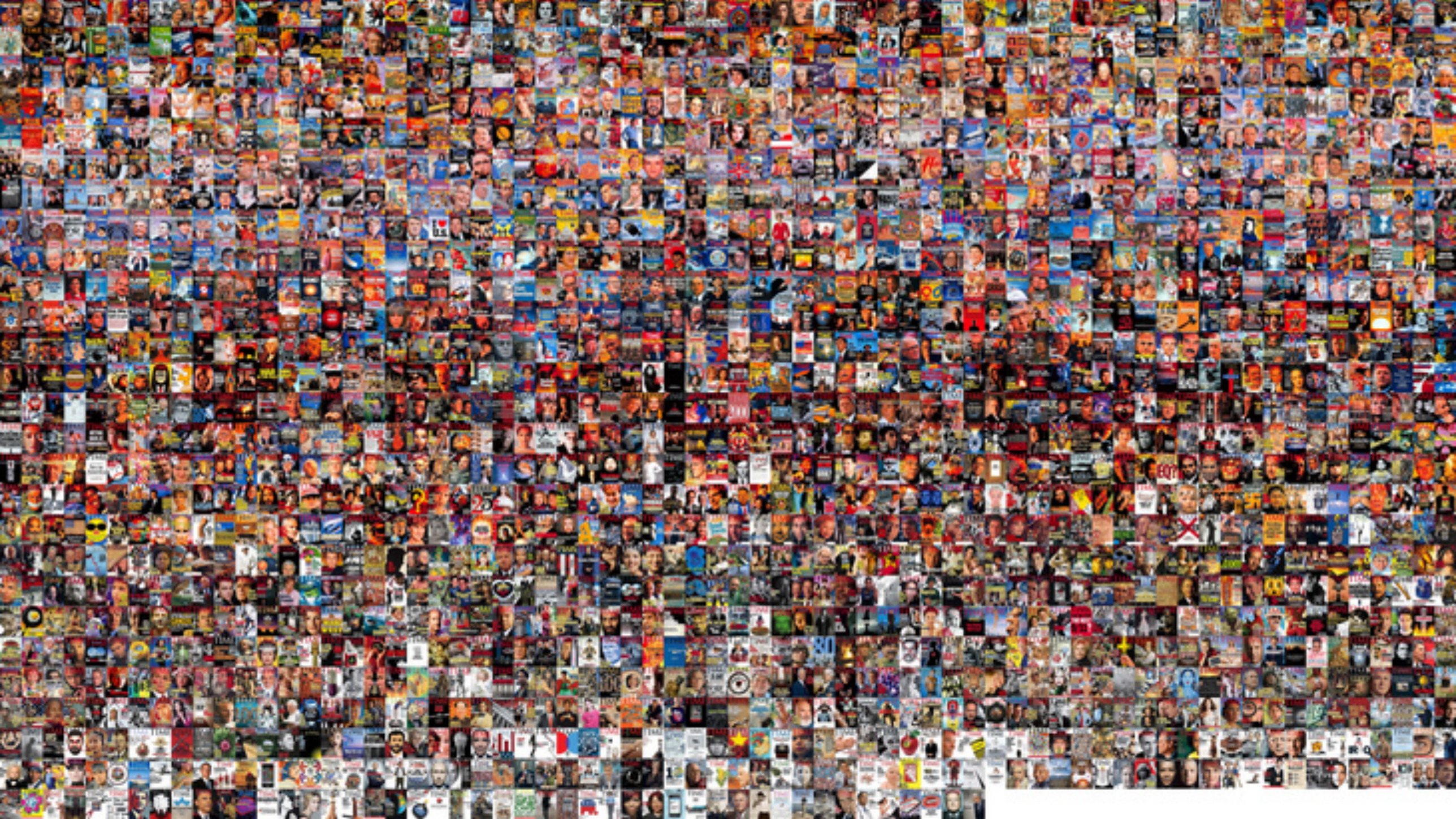
Cultural Analytics Lab

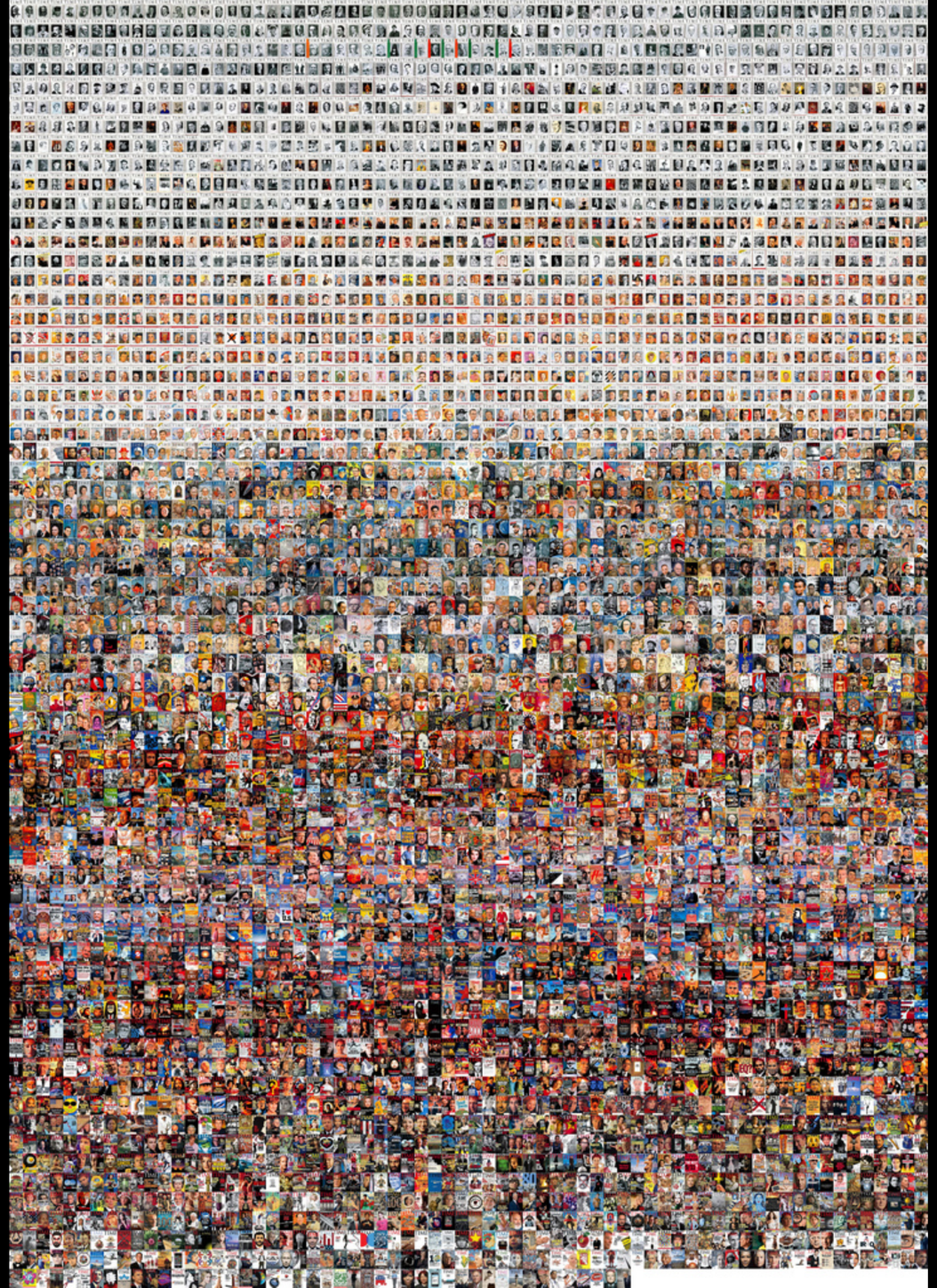












What do you notice?

SOME TRENDS

- **Medium**
  In the 1920s and 1930s Time covers use mostly photography. After 1941, the magazine switches to paintings. In the later decades the photography gradually comes to dominate again. In the 1990s we see emergence of the contemporary software-based visual language which combines manipulated photography, graphic and typographic elements.

- **Color vs. black and white**
  The shift from early black and white to full color covers happens gradually, with both types coexisting for many years.

- **Hue**
  Distinct “color periods” appear in bands: green, yellow/brown, red/blue, yellow/brown again, yellow, and a lighter yellow/blue in the 2000s.

- **Brightness**
  The changes in brightness (the mean of all pixels’ grayscale values for each cover) follow a similar cyclical pattern.

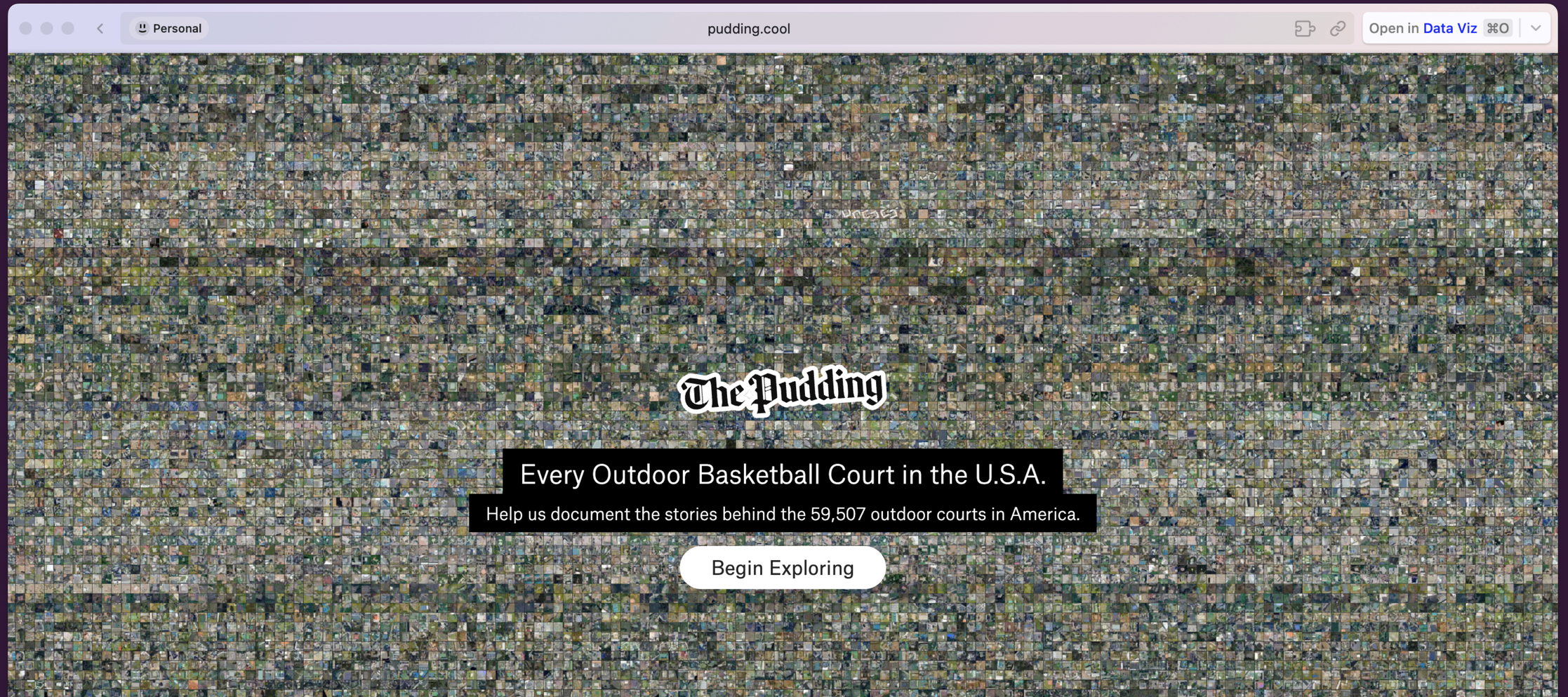
- **Contrast and Saturation**
  Both gradually increase throughout the 20th century. However, since the end of the 1990s, this trend is reversed: recent covers have less contrast and less saturation.

- **Content**
  Initially most covers are portraits of individuals set against neutral backgrounds. Over time, portrait backgrounds change to feature compositions representing concepts. Later, these two different strategies come to co-exist: portraits return to neutral backgrounds, while concepts are now represented by compositions which may include both objects and people – but not particular individuals.

- **Meta-pattern**
  The visualization also reveals an important “meta-pattern”: almost all changes are gradual. Each of the new communication strategies emerges slowly over a number of months, years or even decades.

Every Outdoor Basketball Court in the U.S.A.

The Pudding



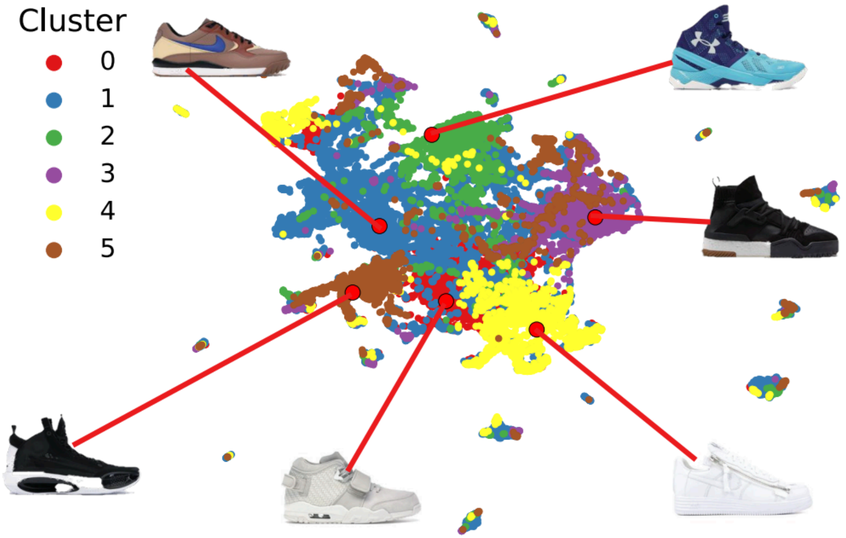
COMPUTER VISION

(some computer magic)

Unstructured → Structured

Nike, Adidas, or Asics? Evolution of sneakers design in 1999-2022 as seen by a neural net

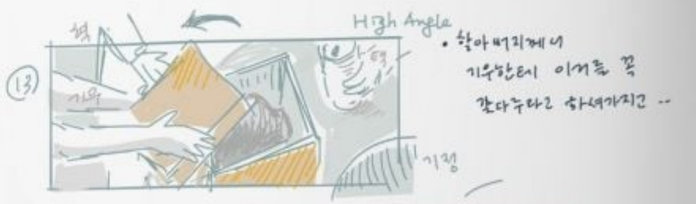
Dr. Lev Manovich



(a) K-means clustering result of the sneaker embedding for the color attribute.

Can you visualise...

a film?



아니 저게 -- . (우PAN) -- 억수로 사우지 ... 툭 !

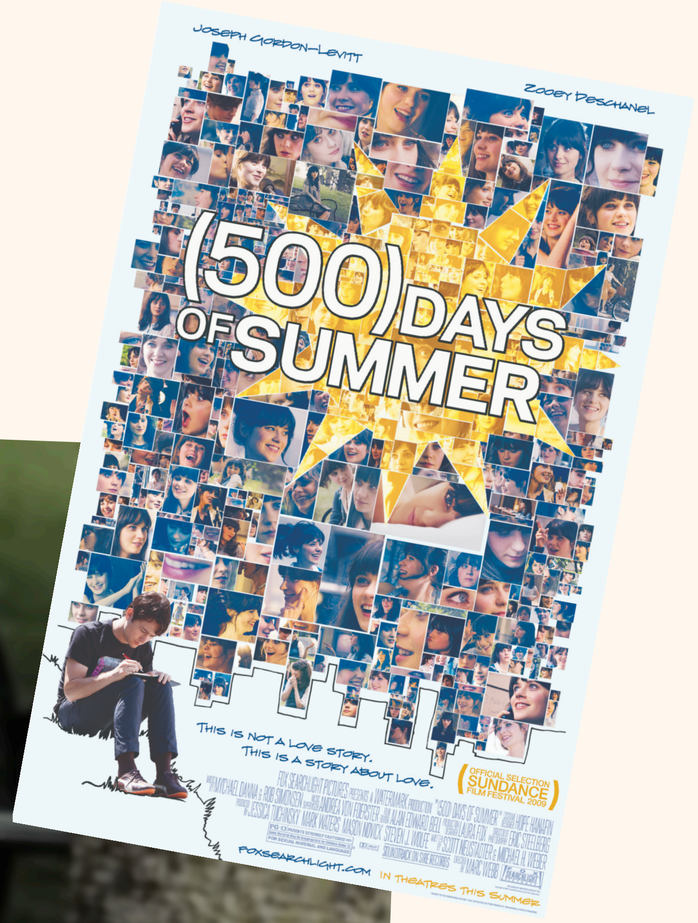
#8. 동네마트.

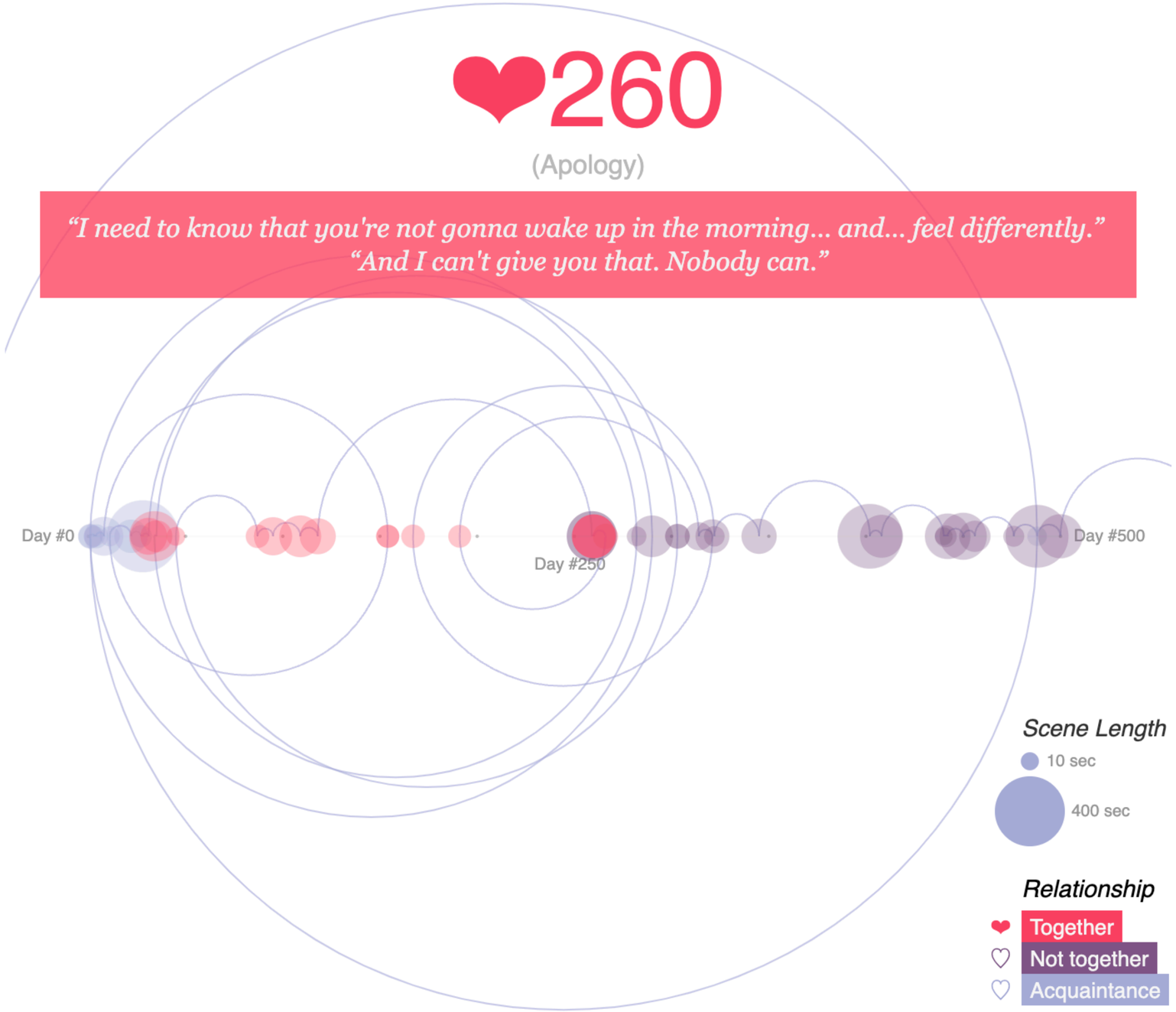
① Fix. Wide
✓ 과자& 소주 사들고나오는 기우.
✓ 물티슈& 데이블 닦는, 엔지없는것보는 기택.

Bong Joon Ho

Parasite storyboards

DAY (183)


JOSEPH GORDON-LEVITT
ZOOEY DESCHANEL
(500) DAYS OF SUMMER
THIS IS NOT A LOVE STORY.
THIS IS A STORY ABOUT LOVE.
OFFICIAL SELECTION SUNDANCE FILM FESTIVAL 2009
FOXSEARCHLIGHT.COM
IN THEATRES THIS SUMMER



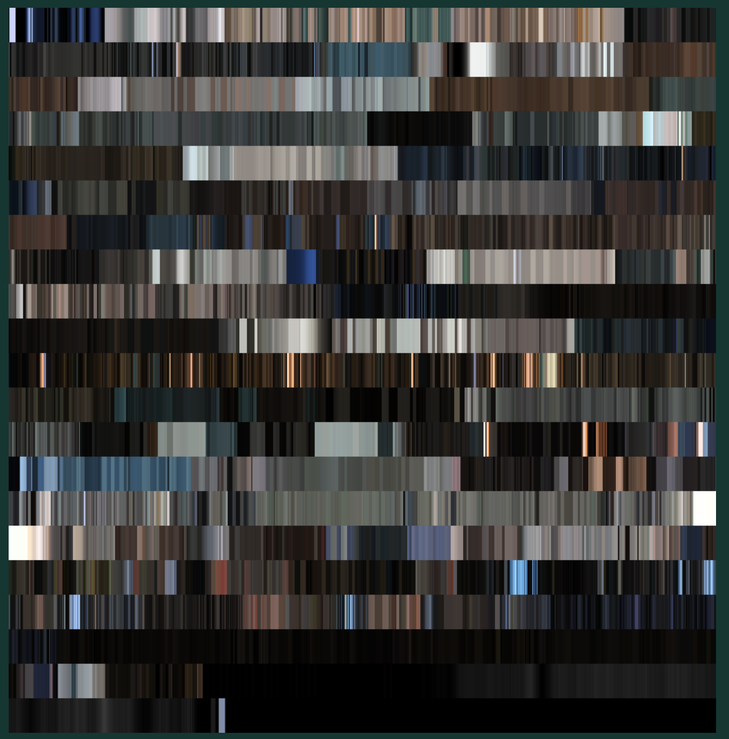
Visualising 500 Days of Summer

Rasagy Sharma

Visualization of movies - Part II - The Batman Trilogy

smartjava.org

Batman Begins

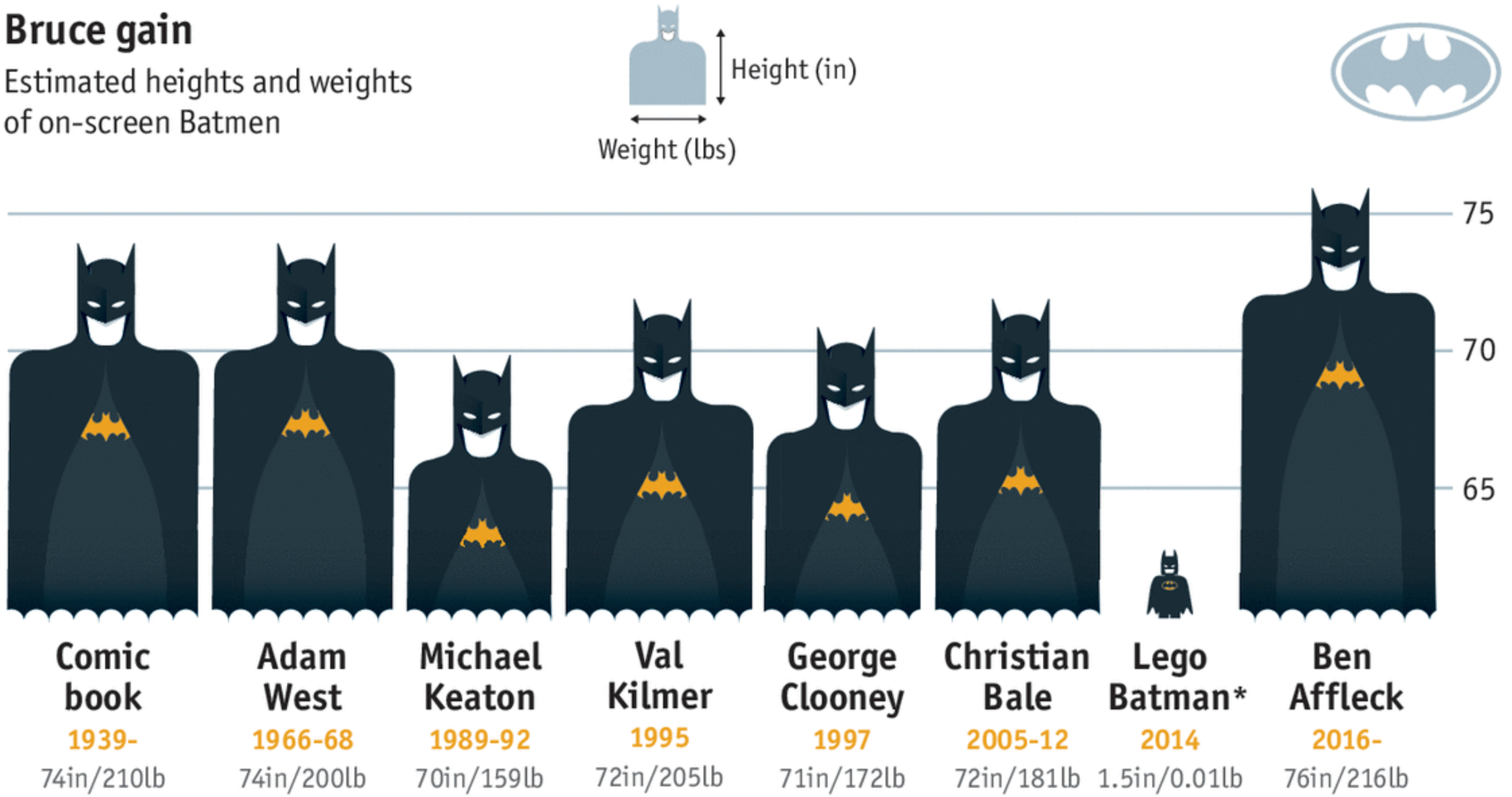


The Dark Knight

The Dark Knight Rises

Bruce gain

Estimated heights and weights of on-screen Batmen



Sources: Moviepilot; IMDb

*From "The Lego Movie", not to scale