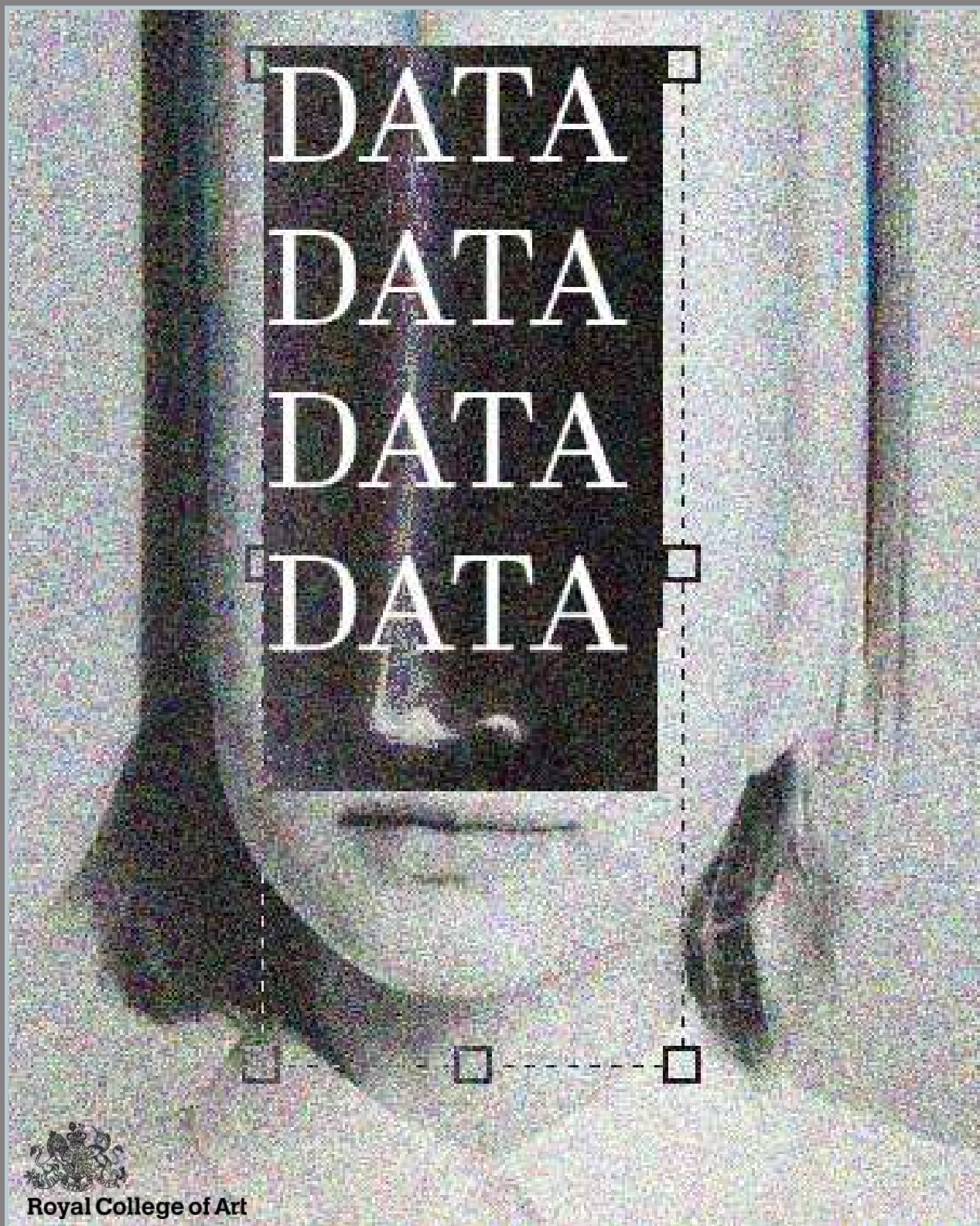


# WHAT ARE THEY TAKING FROM US?

research article



Royal College of Art

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## Team F

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- WHY DIGITAL?
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- Meetings / Decisions / Annotations / Timelines

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As a part of the Across RCA course, Being Digital platform, this article aims towards understanding how data distribution works in a social media world we live in, as well as questioning our digital identities and personas. The research methodology is structured through two types of research: primary and secondary.

Secondary research is based on Color theories in marketing, social media, politics, and endeavors to collect data-set on how we are influenced by the use of color in social media platforms. Following that, the second phase of the project consists of individual color extraction experiment from their social media accounts, and the outcome analysis/reflection, based on the previous color research. In addition, a neutral account is also put under the process of analyzing the colors, in order to make the process more valid, while following the algorithm from the start.

Finally, the research process is being summed up in the form of a short video, trying to capture the process and briefly communicate the message to the viewers in a more efficient way, as well as adding a different kind of narrative and tone to the story.

Key words: data distribution, color theories, research methodology, color experiment

## **Abstract**

# Introduction

## Why being digital?

Platform being digital is based on contemporary issues of the modern world we live in, and each of us is in one way or the other influenced by the digital media. On that note, voluntarily or not, we are taking a role in the digital system, which uses data as an elementary part for communication. On that account, we as a group, felt like our project should aim towards understating the way digital world is functioning, and possibly educate current and future generations that could accept some of the points we are making through the research. In addition, what we were all interested in from the start, was the ethics and set of rules that are still finding their way in the world of social media, which we would be focusing later on in the article.

## What is Data Colonialism?

As a group, our interest was aligning with the following questions, that provoked the research:

- How is my data being used?
- What is data colonialism?
- Who oversees our data?
- Government censorship and power over data
- Data in politics, data centers, transparency
- How does the data move territoriality, geopolitics?
- Connection between physical and digital

## Data Collection and colors in marketing

Our decision to move on from data colonialism to color investigation was based on our will to narrow down the word data to a specific kind, that we would be focusing on, based on the other research and references. To cover every data and answer some of the questions above, seem almost impossible, however, focusing on exact information we are seeking might make a bit more sense to the research.

Therefore, further focus of our interest could be expressed through following categories:

- Colors in politics, associations
- Colors in psychology, symbolism, subconsciousness
- Color as a media for marketing manipulation.
- Visual language as a media in today's culture
- Color algorithm in social media.

# SECONDARY RESEARCH – COLOR THEORIES



## COLORS IN MARKETING/POLITICS

Companies use colors consciously, in product design and advertisement, in store environments, for their corporate logos, in the attempt of having desired positive effects.

Color red is associated with dominance and aggression. However, its association with danger and failure can produce avoidance motivation and effects in achievement situations such as cognitive tests. Blue and green - calmness and peace

### Marketing literature:

**Red:** excitement, passion, anger, danger, action, anxiety, power.

**Orange:** playfulness, friendliness, creativity, warmth, enthusiasm.

**Yellow:** happiness, optimism, warning, joy, originality, enthusiasm.

**Green:** Youth, vibrancy, vigor, nature, growth, stability.

**Blue:** Calm, stability, depth, peacefulness, trust.

**Purple:** Royalty, luxury, romance, introspection, calm



### CASE STUDY 1- Sentiment analysis based on frequency of color names on social media.

#### Intro - What is experiment about?

- Research shows that color can make advertisements more attractive, promote favorable attitudes and influence consumers information processing and their responses to advertising.
- Although a great many studies find that colors affect consumers it is nonetheless difficult to find simple and clear guidelines as to exactly how color affects consumers. This may be because the meaning of color often varies depending on context.
- Far fewer studies, if any, have considered the effects of colors in marketing in terms of literal color names.
- 11 basic color names: black, white, red, green, yellow, blue, pink, gray, brown, orange and purple.
- The language that we speak affects our worldview and, in the context of color, our perception.
- How is color sentiment being used?

#### Measuring the sentiment:

- Emotional experiences are best characterized in two dimensions. One dimension is the valence, or pleasure-displeasure dimension, which ranges from highly positive to highly negative (for instance: from agony to ecstasy). The other dimension is the arousal dimension. Study focuses on the first one.
- Deriving sentiment value of each word using AFINN lexicon, which rates the valence of English word using score from -5 to +5. A positive score indicates a positive emotion, while a negative score indicates negative sentiment.
- For example, if the color blue is mentioned with words such as: win, love, lol, beautiful, true. the frequency of the word in that context would be measured and regarded as highly positive color. The sentiment score of the color is higher as it is being used with those words.

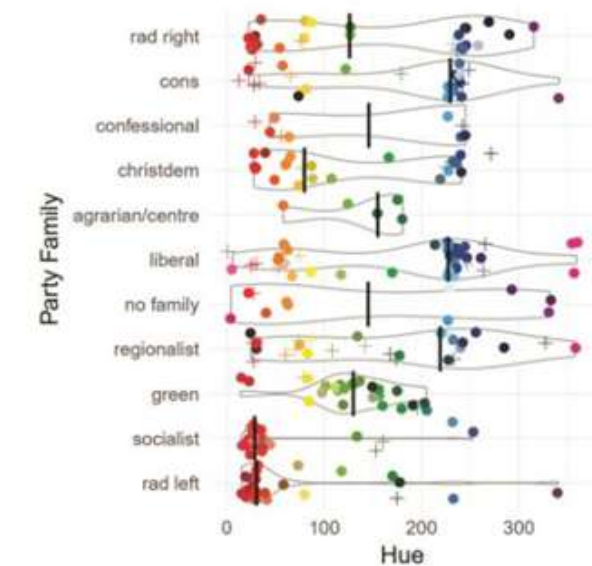
#### Results:

- Findings show that it is possible to develop tools to automatically monitor and predict the sentiment associated with color names in social media. Marketers can analyze the color associated sentiment regularly, maybe on a six - month basis or an annual basis, to guarantee their chosen color is associated with positive sentiment. (if they use the color in their name: Red Bull).

### CASE STUDY 2 - L. Marini, Red Parties and Blue Parties. The Politics of Party Colors: Use and Perception of Non-Verbal Cues of Ideology”

- Explains how colors affect political behavior and how do voters respond to different colors.
- A growing body of literature has been studying the effect of color perception on psychology and behavior.

#### Phase 1 - identifying the colors on party family logos.

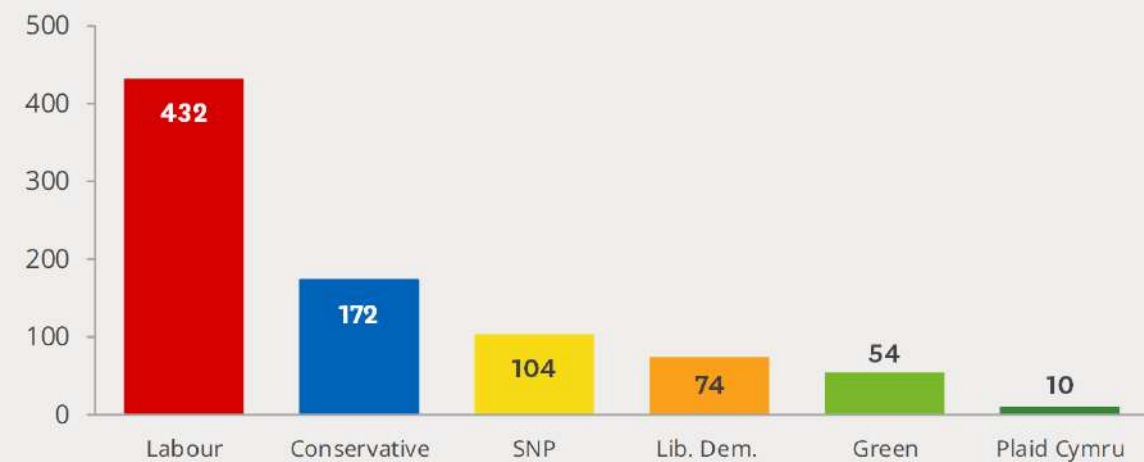


### Phase 2 – Connecting the colors to the origin of political thought/family

- Socialist parties and the communist and radical left use red almost exclusively
- Green parties use shades of green, as do centrist agrarian parties.
- Conservative parties adopt mostly a blue color.
- Both Christian-democratic parties and liberal parties are divided between the use of yellow and orange.

### **Membership of political parties in Great Britain**

Current as of August 2022, in thousands



### Phase 3 – Are individual perceptions of political messages affected by the use of colors?

Subjects will be asked to evaluate the ideological orientation of the policy statements, rating them on a seven-point left-right (or liberal-conservative) scale. The randomized manipulation consists in modifying the color of the background where the policy statements are visualized. The treatment was the assignment of red and blue backgrounds. For example, a policy statement framed in red will be evaluated as more left-wing in a political context where red is commonly associated with left-wing politics.

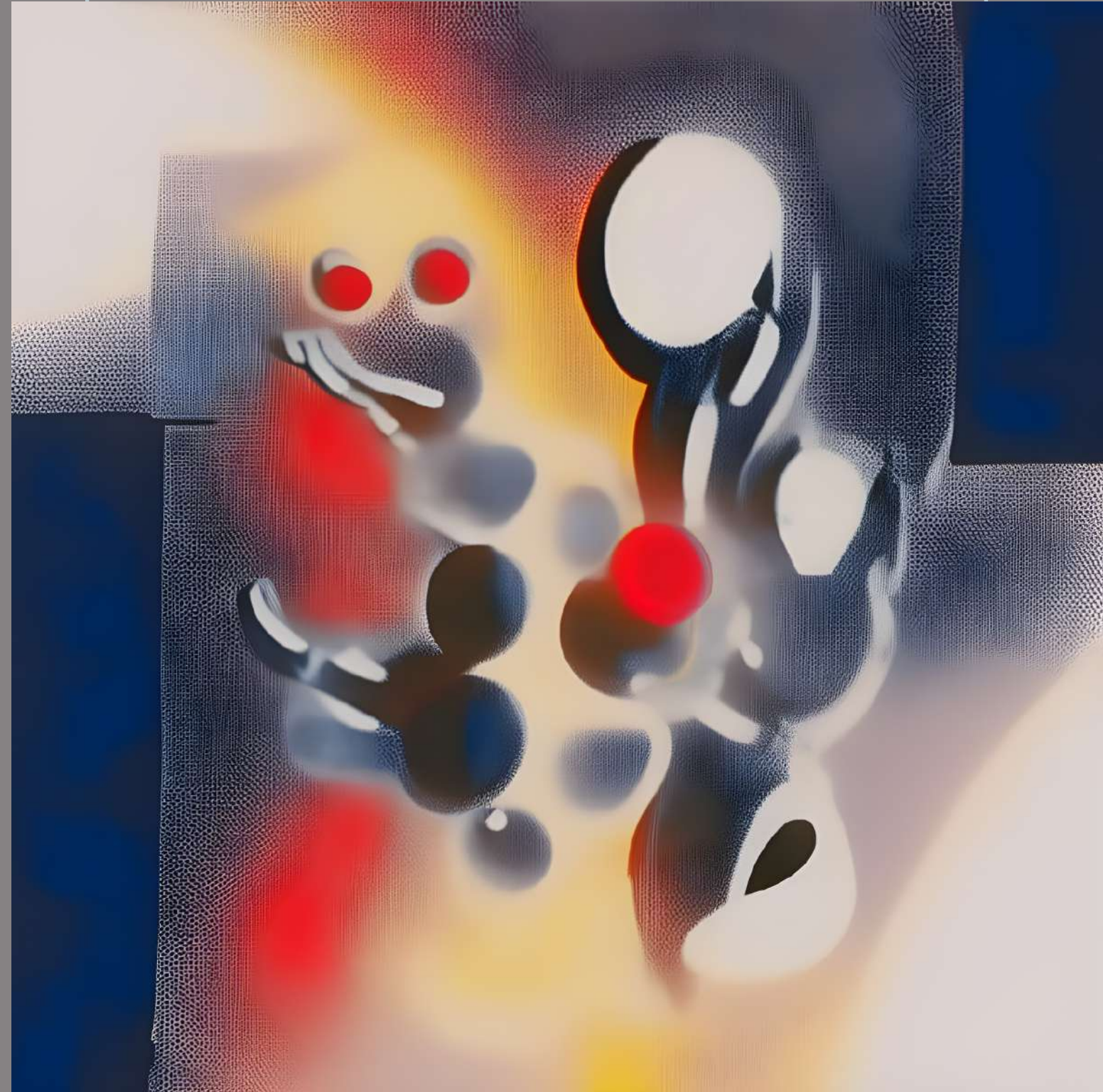
For example, it would teach us whether a party can convince some voters that it has changed policy platform just by changing the color of their logo and campaign material.

The conclusion was that statement on the card was more connected to the origin of the background color than the content of the statement.





# Colour Instagram







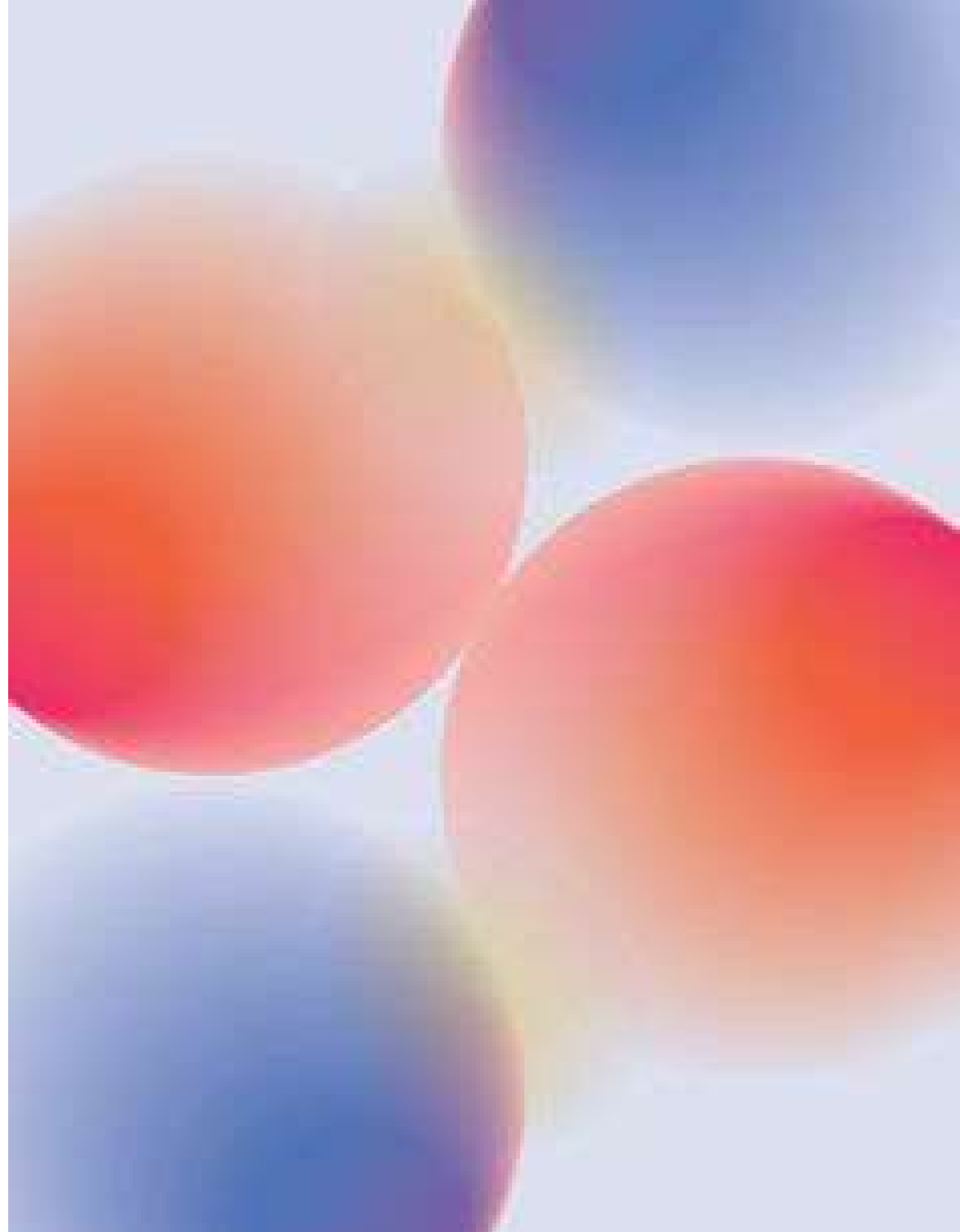
Instagram is an online photo-sharing and social networking service. It was founded by Kevin Systrom and Mike Krieger in October 2010. It allows you to share photos and videos, either publicly or privately with other users you follow. You can also post stories, which are photos or videos that last 24 hours before disappearing. The app also has features such as digital filters and a messaging system.

In April 2012, Facebook acquired Instagram for approximately \$1 billion in cash and stock. This acquisition helped Instagram grow even further, leveraging Facebook's resources and user base.

# Experiment

Departing from the assumption that the colours we like digitally tell something about our personality, we believe that social media is able to use this insight in our personality to perfect its marketing strategy. In our perception, the marketing strategy is there to grow power and influence of this corporation.

If Instagram reflects our colour preferences in the posts it recommends us, this is an indicator of social media's ability to build an echo chamber for its users. It would first prove that Instagram is tracking the colour preferences from our digital persona. Secondly it would prove that it is redirecting the insights of our colour preferences in order to hook our attention, keep us on its web-service and entice us to buy advertised products, which leverages profits for Instagram, which gets payed by these adds.



# Capturing

Our experiment involves extracting color information from Instagram posts and generating a color palette for analysis. This process offers insights into the visual composition and aesthetics of the content shared on the platform, providing valuable data for various research purposes.





The research question is the following: **What is taken from you when your data is tracked?**

The experiment control group: the members of this project.

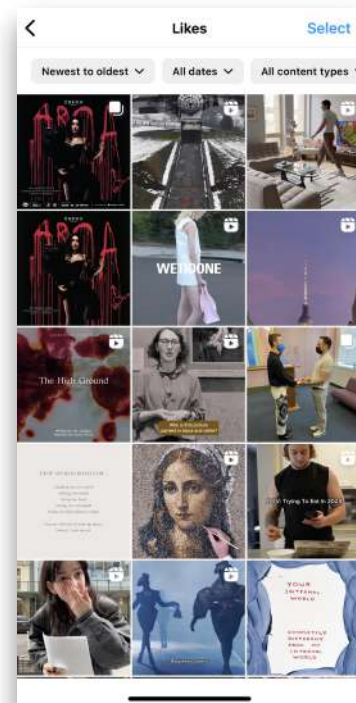
Social media to monitor: Instagram.

Time frame: 7 days.

We decided to track our data on Instagram social media. Each participant in this experiment must enter their Instagram account and:

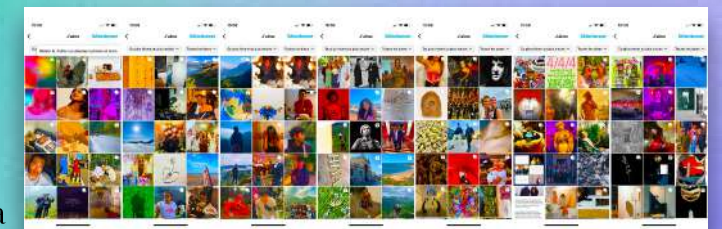
- Click on the  their profile page.
- Click on your  Your activity
- Click on  Interactions  
 Likes >

We captured the generate image carrete inside our phone photo file.

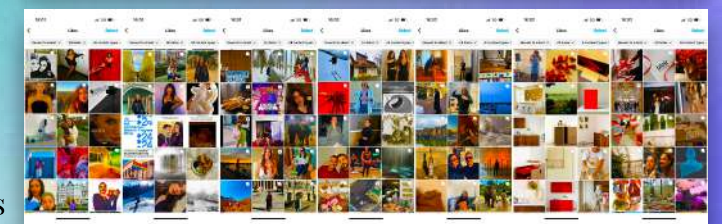


The next step was to create a single collage image. The time frame was 7 days captures of our Instagram like posts. We extracted the dominant colours in each collage image to generate a colour palette.

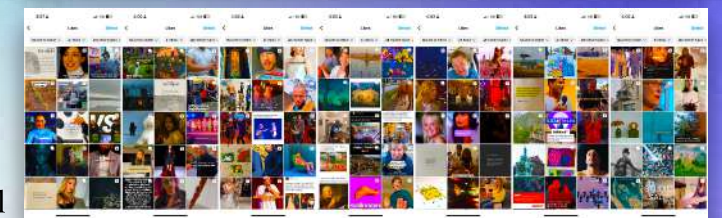
Sonia



Boris



Rafael



Tianmin







#### Sonia - Color Palette reflection

Boris' likes reflect the broadest range of colours. He likes content with blues, turquoise, red and dark browns

On the recommended content, based on the first colour palette, the colours do not reflect light blue, more warm light browns and greys with less contrast than Tianmin's recommended content.

Rafael's pallet is heavier on the turquoise, blues than on the oranges and browns. The blues are more divers and dark compared to Boris' and Tianmin's light blue.

On the recommended adds, based on the first colour palette in January's presentation, Rafael is exposed to darker greys, browns and a little greyish blue, with less contrast than Tianmin's recommended content.

Tianmin likes Instagram content with light colours. His colour preferences are rather orange, with another emphasis on dark brown and has a little light blue touch. His preferences are the most concise.

On the recommended adds, based on the first colour palette in January's presentation, Tianmin is exposed to contrasting content, including dark and light - greys, - blues and few brown tones.

Sonia is the only person who has no weight on the blues. The content she like was more lighter orange and brown than darker shades and there is an interest in bright red.

#### Boris - Color Palette reflection

It is noticeable that the color palette of the content I like, varies a lot, and includes a variety of colors, from the most vibrant tones such as red and turquoise, to more earthy shades of browns. Supposedly, predominance of nude palettes shows up, because of the human skin in the pictures I like the most.

During that process, factors that influence if I like something on social media or not are connection to person in the picture, familiar content, funny and interesting content. Focusing on the second palette of the recommended content, the only shades that could be seen are beige, nudes, and browns. It is interesting how the bright color tones are almost excluded, in comparison to the first one. Therefore, I would say that around 70% of the colors in the two palettes match.

Most of the sponsored content I like is in domain of product and furniture design, clothes and traveling, and apparently colored in brown. As a result, I could say that the characteristics of my digital persona are simplicity, melancholy, comfort, and security, according to some color theories.

### Rafael - Color Palette reflection

In Rafael's color palette preferences and suggestions, it's apparent that the initial twelve colors extracted share a similarity, predominantly falling within the grayscale spectrum of black, white, and various shades of gray. This pattern wasn't as prominent in the color palettes of the rest of the team.

Furthermore, it appears that grayscale colors are the most commonly extracted from the samples and serve as the foundation for each palette, although not to the same extent as seen in Rafael's color palette.

This similarity yields an intriguing outcome for me. Every post I clicked like, results in a recommendation with a similar color scheme. The algorithm suggests that it understands my preferences, as it consistently offers suggestions within the same color palette that aligns with what I enjoy.

For the remaining half of the colors in the palette, I can see a small discrepancy between my preferences and likes. It seems that the suggested colors for me are similar but slightly less vibrant compared to the ones I choose myself.

Sonia's palette presents a strikingly similar color scheme in both extractions, distinguished by a prominent preference for one vibrant red hue among her choices.

Tianmin's color palette is among the most vibrant suggested by the algorithm. I find myself wondering why, out of all of us, his stands out with such bright selections.

Similar to Sonia, Boris also includes the color red in his liked color palette, yet once again, it is not suggested by the algorithm in his recommended color palette.

It's crucial for me to grasp that our post selections and personal preferences still hold a significant degree of individual input. However, it's equally important to discern when the algorithms begin suggesting our selections in other marketing posts.

After this experiment, I find myself questioning at what exact point we begin to be influenced or manipulated by the suggestions provided.

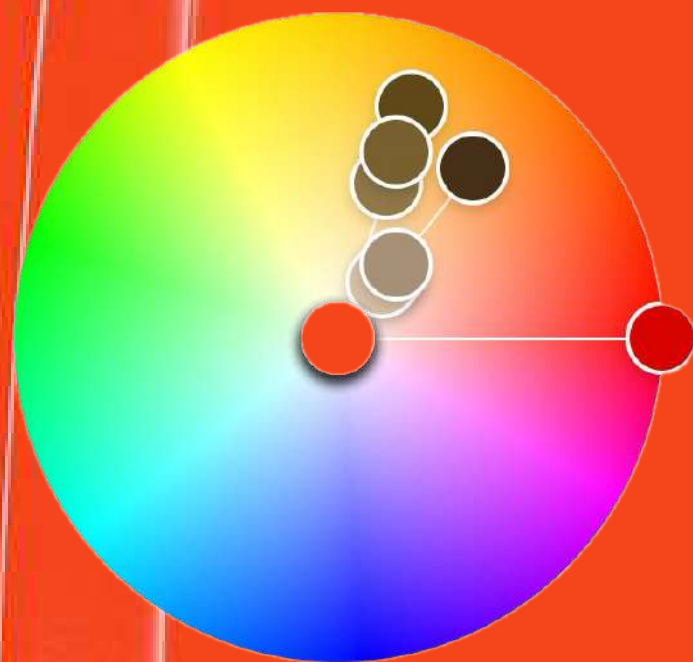
### Tianmin - Color Palette reflection

Looking at Tianmin's colour palette the colours on the likes are more concentrating towards the orange and blue colours. It seems to be the content Tianmin like is more concentrating towards similar content. Comparing to instagram recommend colour, the instagram seems trying to led the colour for Tianmin towards blue. Comparing Rafel's colour palette the likes and recommend colour seems opposite with Tianmin's refer's liked colour seems to be more polarising towards blue and orange and instagram is trying to recommend him more neutral colour.

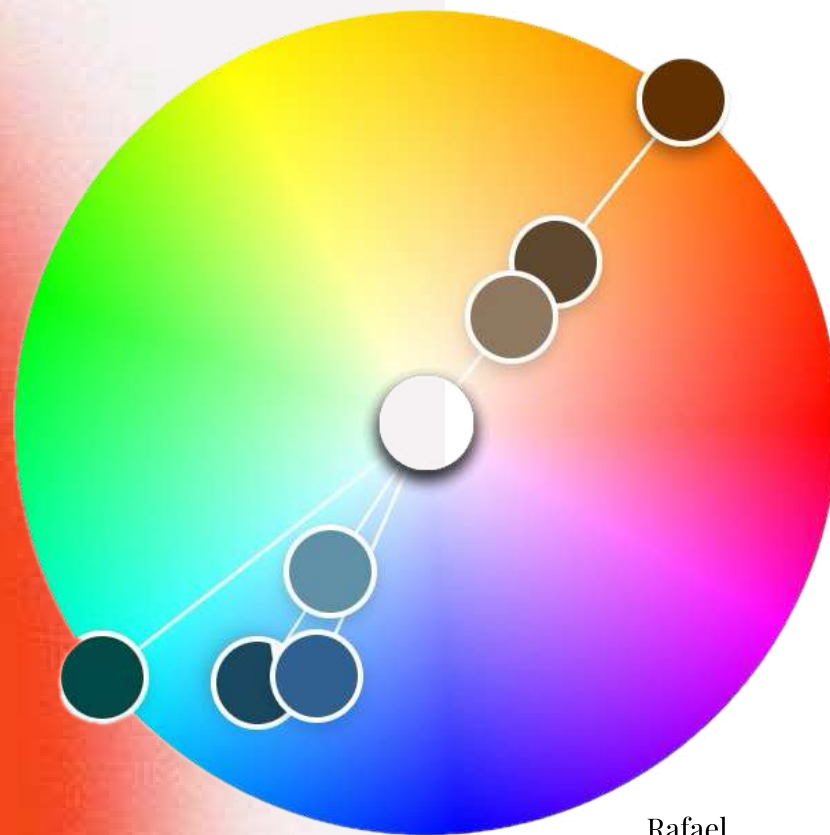
Boris and Sonia's colour have a lots of similarities, both colour palette are shapes like triangle and both polarising towards red blue and orange. However Boris likes colour are more diverse and his instagram colours is focusing more on natural colours similar to Rafel's recommend colours.



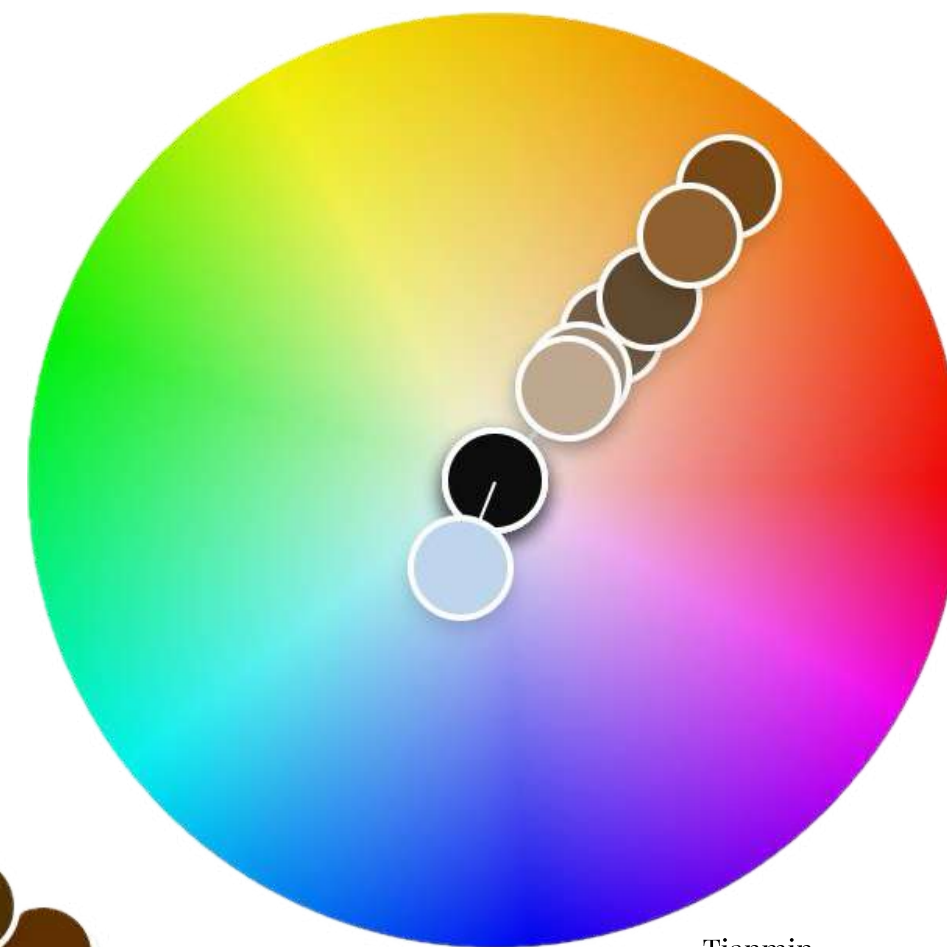
# Like Posts on Instagram



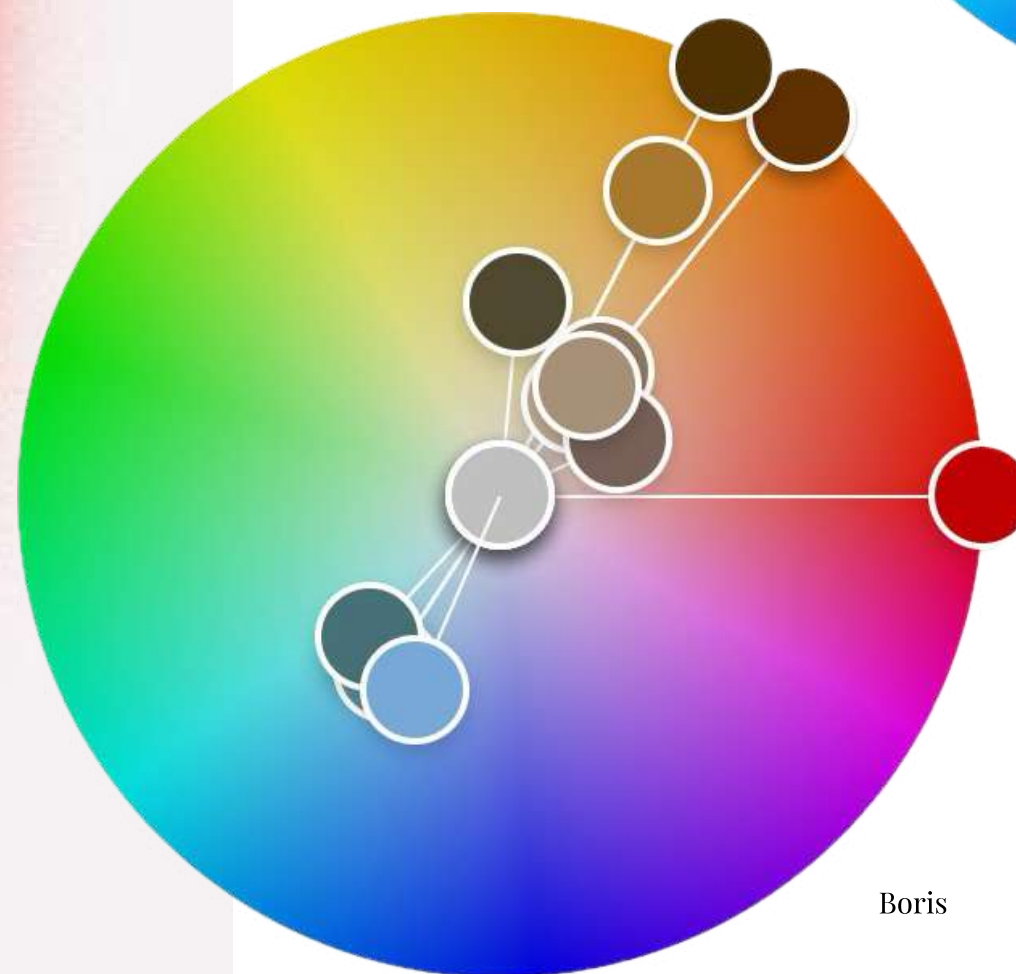
Sonia



Rafael

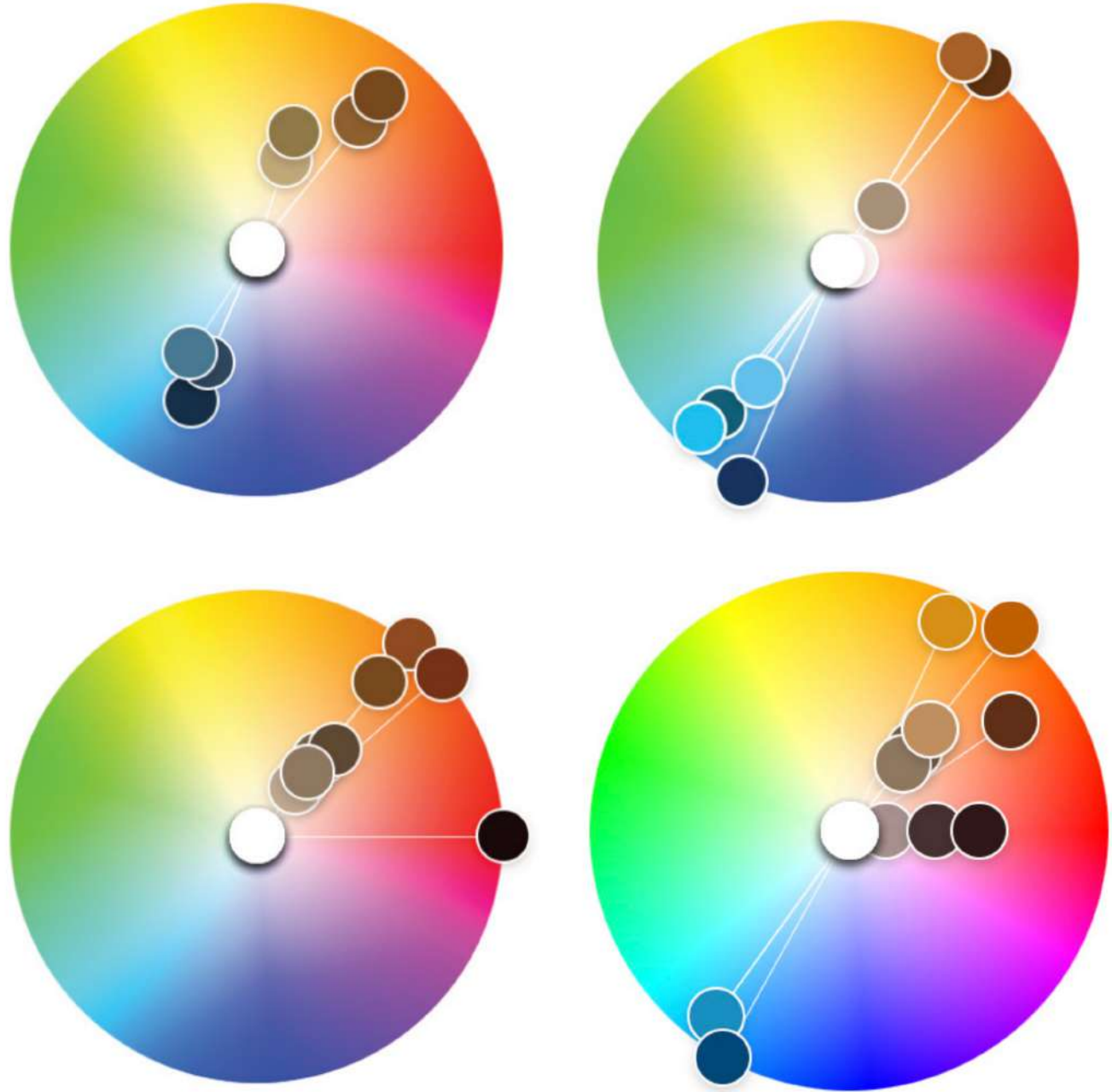


Tianmin

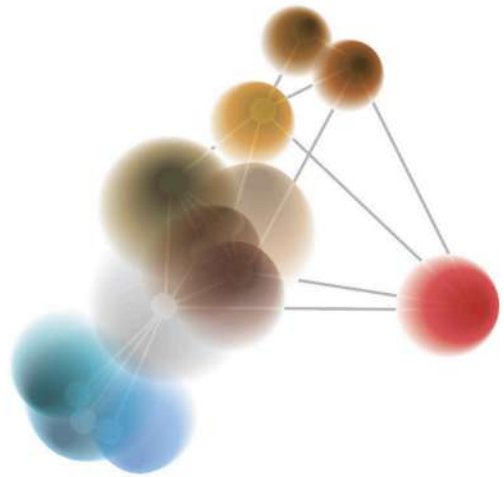
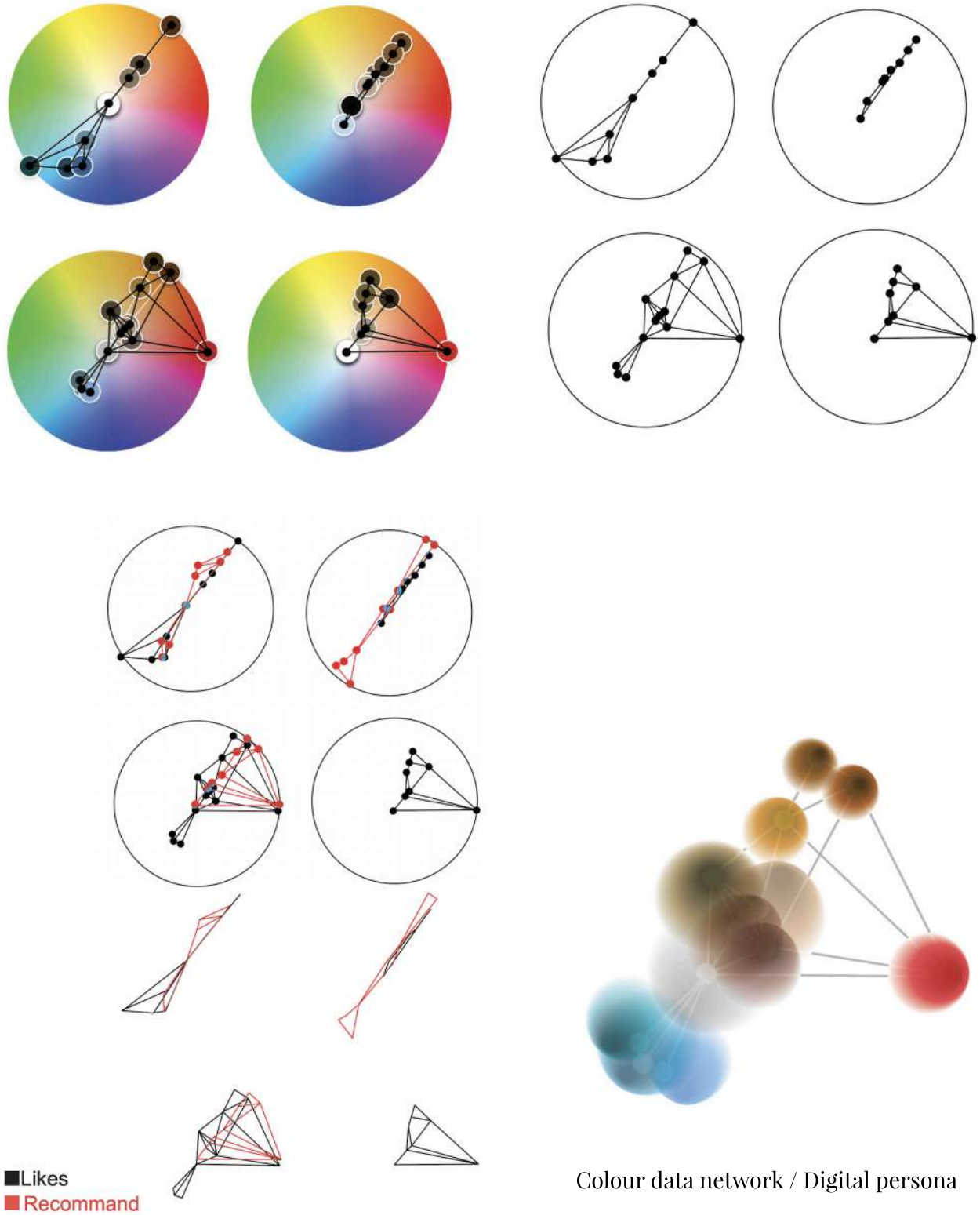


Boris

# Suggested Posts by Instagram



Visualizing Colour Data

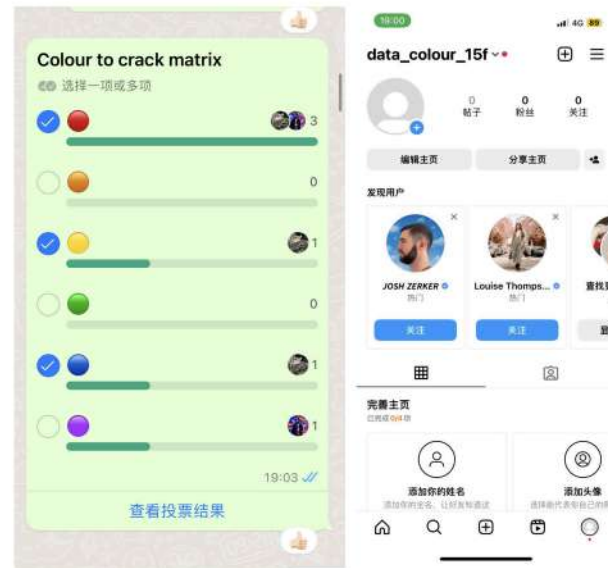


Colour data network / Digital persona



# 'Gaslighting' instagram

Based on the experiment on tracking our digital persona with colours on instagram.  
 / We thought maybe we could set up a second experiment to see if our thinking is right. So we set up a second experiment to crack the algorithm.  
 / We think it might be interesting to like only on one colour and see if we could get recommend or advertisement of that colour.

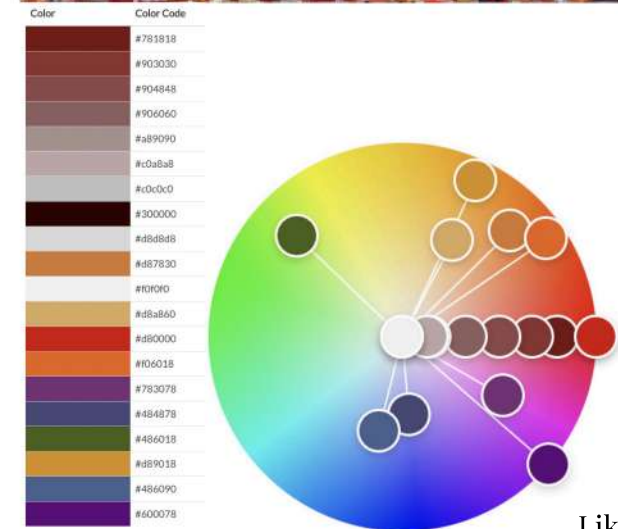


# Experiment 2

Comparing likes and command colours, likes colour are more concentrating to red.  
 \ Is it a manipulation because the algorithm believe the user are more into colour red?  
 \ Is it means our colour being tracked and malipulated?

data\_colour\_15f

Limitaion: festival  
 Valentine's day  
 Chinese New year

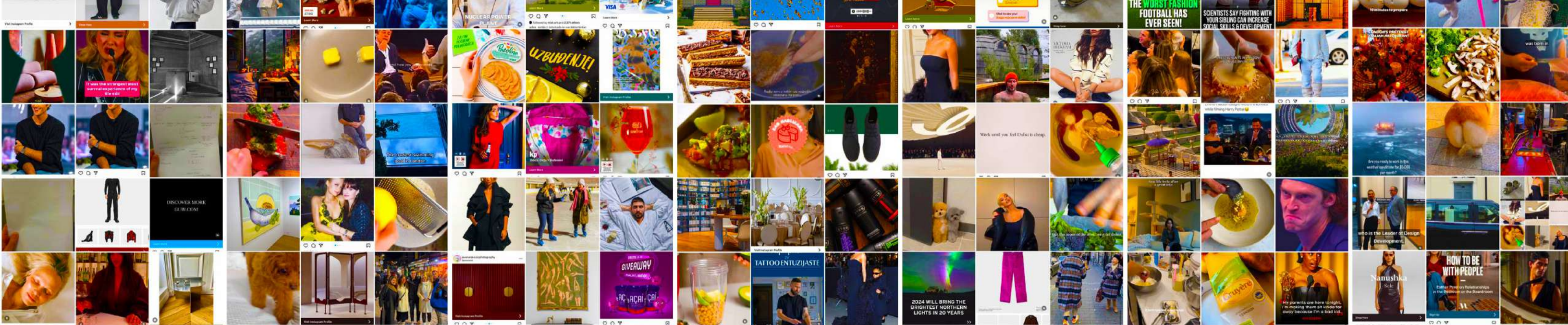


Likes

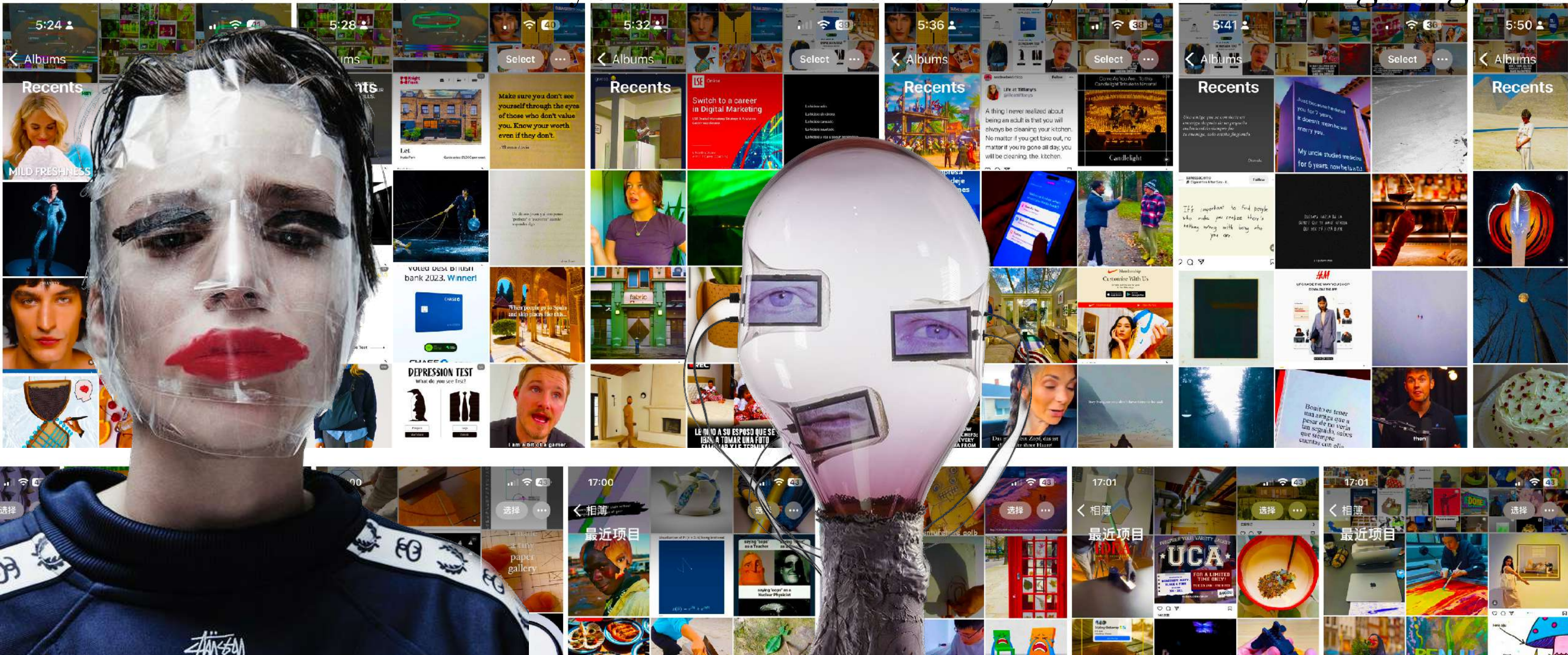


Suggested





what is taken from us when your data is tracked? why is this worrying? digital.





Our choice to conduct a playful experiment on Instagram posts was motivated by our curiosity as everyday users of the platform to recall information without any specific knowledge or intentional data collection practices.

The experiment is reproducible by any group of peoples with a phone and an ongoing Instagram account.

By infusing a sense of playfulness into our content, we aimed to explore new ideas and hypotheses in a low-risk environment. This freedom to explore can lead to unexpected discoveries and insights that may not have been possible with more traditional research methods.

By collecting colour data from Instagram posts, we gain a deeper understanding of the prevailing color trends, preferences, and patterns among us. This information can be used to inform marketing strategies, design decisions, and content creation efforts, helping us to have a better understand and what they really know about us and how they using colour to attract users to their own posts.

Our experiment enables us to explore the effects of color in digital communication. By studying the distribution of colors and their associations with user engagement metrics such as likes or suggested content. We can gain insights into how color influences audience perception, mood, and behavior on social media.

Overall, our experiment offers a valuable strategic opportunity to explore the role of color in digital communication and its impact on user behavior and perception in a further and bigger project.

Our constraints include a limited sample size, which can lead to randomized results that may not accurately reflect Instagram's overall activity. Additionally, the number of images analyzed is too small to provide a representative indication.



Reflecting from the experiment:

If there are more colour nodes, does it mean the range of colours is broader? If there are more nodes on the blue than on the brown, does it mean the more blue content was like than brown? As far as I know, the latter question can be negated. Can we annotate that the diagram represents the range and not the weight of a person's colour preferences?

What are the cultural influences: - what impact does skin-colour have on our palette? Is the culture we grew up in directing us whether natural 'dyes'- and colours are more important than flashy colours from a privileged society's post industrialization context where colour is edited digitally and independent of the real world's urban grey? For instance, is Boris' preference for natural colours saying something about his values and where they come from while Sonia's favouring demonstrates ignorance and egocentrism of self-representation? What is our impression - do the colours reflect our character?

Is Tianmin's light blue a preference for outdoor pictures with blue sky? Is Sonia's emphasis on light oranges, beige and browns due to her the white-skin colour of her network?

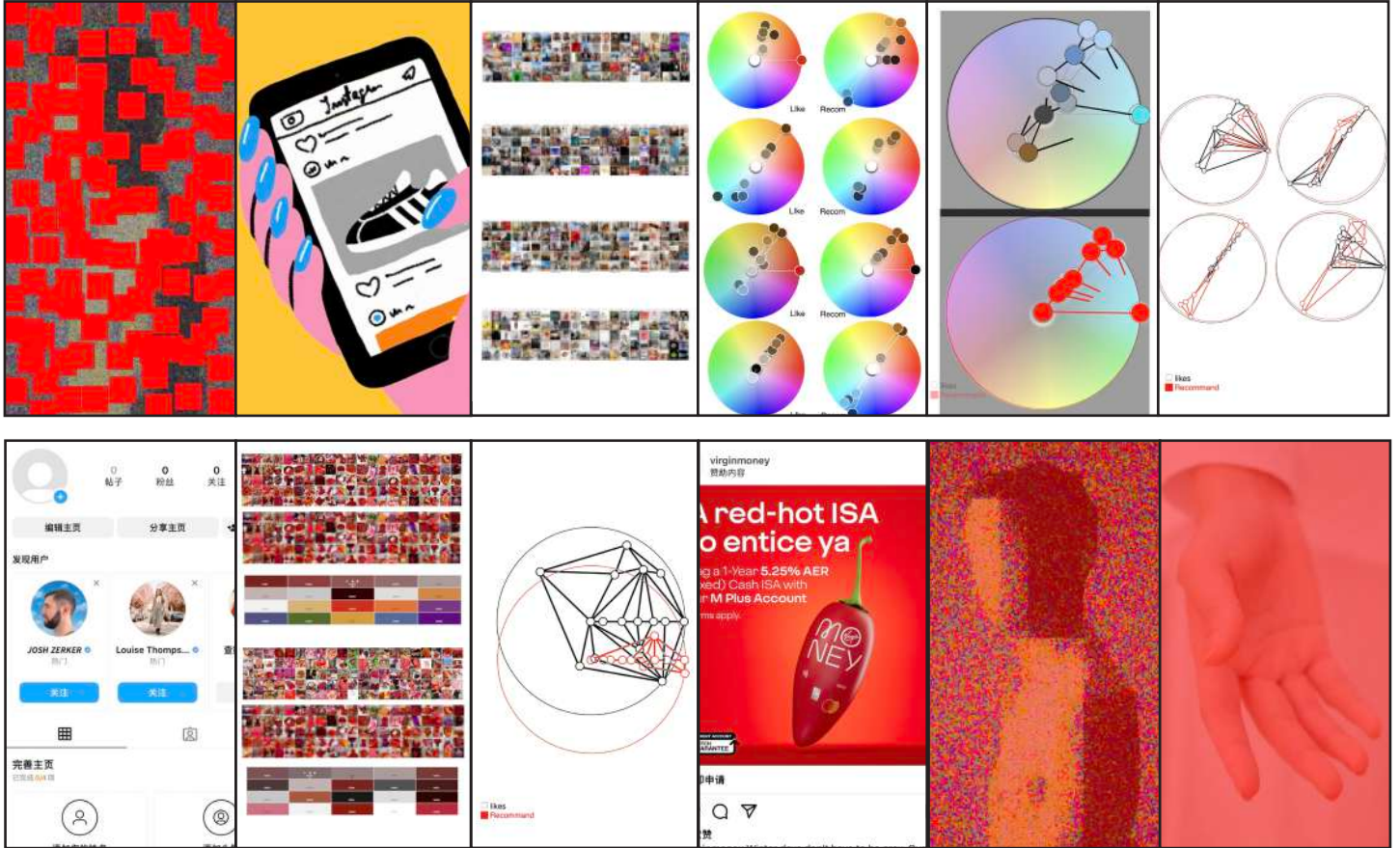




# Outcome

/

60s Video 1080 x 1920



Our final outcome is 60 second video. Because we want to post our video on instagram reel and its maximum timeline is 60 second. We set our frame size into instagram reel size(1080X1920px). The video is motion graphics of the process experiment and our research to raise awareness about data colonialism.