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## Analysis of Most Painted Pixels in r/place Data

### Introduction

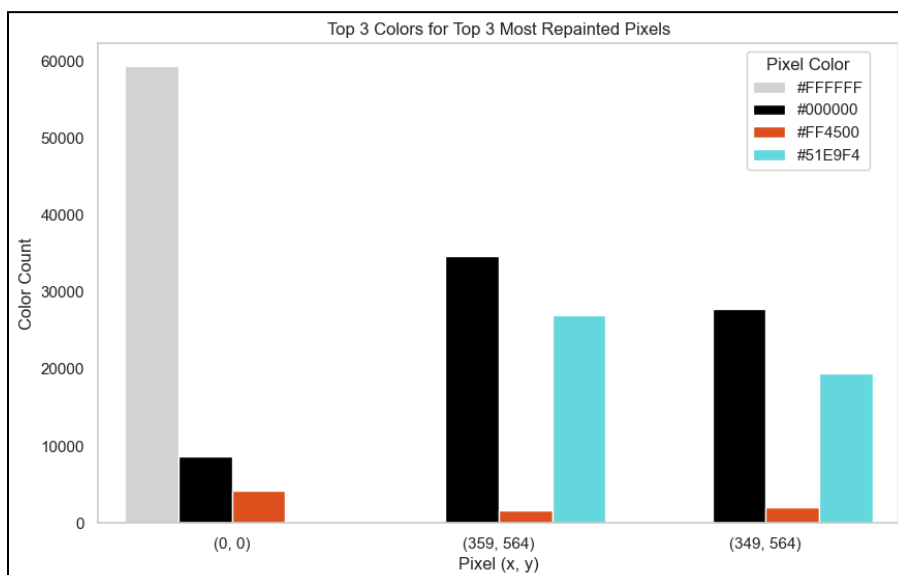
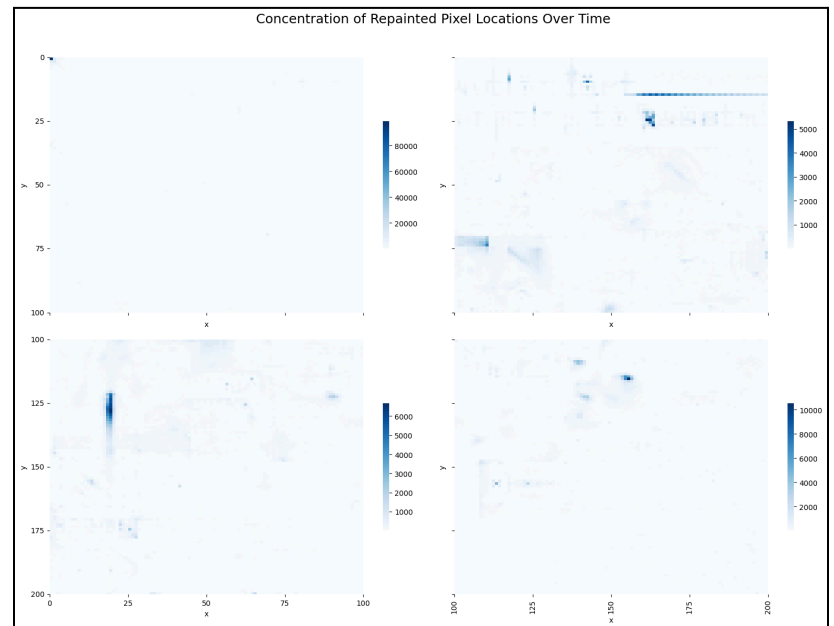
Reddit's r/place is a collaborative online art project where users can place and repaint pixels on a shared digital canvas. The pixel dataset for 2022 tracks user ID, timestamp when the pixel was placed, and pixel color and location (x,y coordinates). In this analysis, I will focus on the most frequently painted pixels on the r/place 2022 canvas to understand why they were the most contested locations.

The top three most painted pixels were:

1. (0, 0) → 98,807 times
2. (359, 564) → 69,198 times
3. (349, 564) → 55,230 times

I first visualized the concentration of repainting activity across the canvas. To better understand the patterns, I created a heatmap showing the distribution of painted pixels (right).

I split up the heatmap into four sections (top left, top right, bottom left, bottom right). The most concentrated regions, such as (0,0) stood out clearly. There were other locations with high repainting activity, indicating areas where community-driven artwork was constantly changing.



I then performed exploratory data analysis (EDA) on the colors used at the top three pixels. By analyzing the distribution of colors, I found that white, orange/red, and light blue were the most commonly used, with black appearing in one case. I compared these results to the overall color distribution of the canvas, which also showed black, white, and orange/red as the top three, with light blue ranking 7th.

## Contextual Research

To understand why these pixels were repainted so often, I also examined the actual canvas at these coordinates.

- (0, 0) corresponds to the “Connection Lost” banner, referencing the message Old School RuneScape players would see at the top left corner of their screen.  
([https://www.reddit.com/r/place/comments/tukrrl/the\\_connection\\_lost\\_banner\\_what\\_is\\_this\\_anyway/](https://www.reddit.com/r/place/comments/tukrrl/the_connection_lost_banner_what_is_this_anyway/))
- (359, 564) and (349, 564) are part of the “R/PLACEUKRAINE” banner, which symbolized global solidarity with Ukraine during the ongoing Russo-Ukrainian conflict.



The annotated pixels (as red dots) were located within highly visible symbols that became focal points for many r/place participants. The “Connection Lost” banner and the R/PLACEUKRAINE artwork both carried cultural and political significance, leading to frequent updates and collaborations, thus increasing the number of times these specific pixels were repainted.

I need to look at more than just data of r/place, but need to combine this quantitative analysis with qualitative research. This leads to me asking several questions and I will use the 5 Whys Methodology.

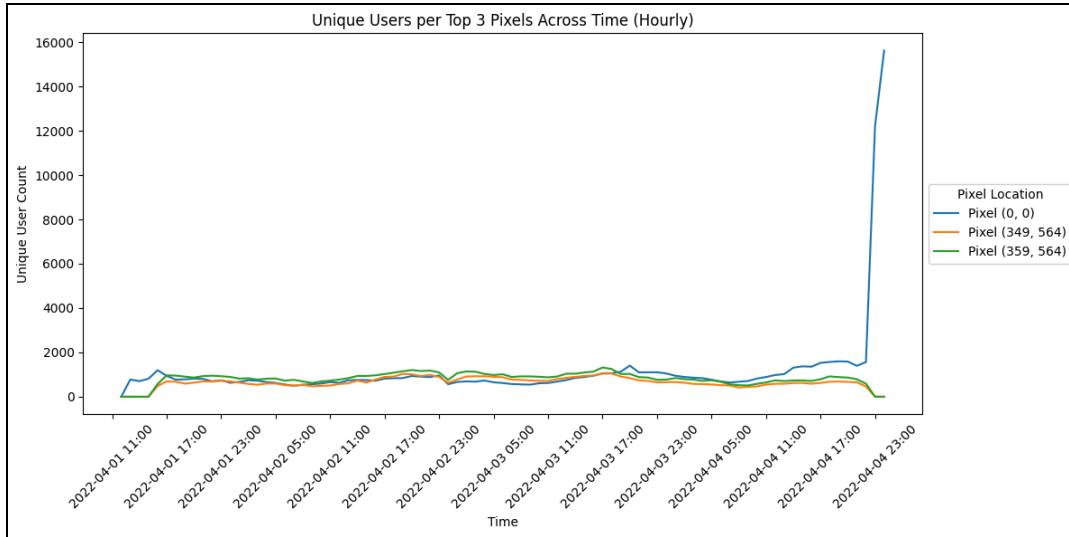
## 5 Whys Methodology

### WHY 1: Why are these pixels being painted so often?

- These pixels were located near highly visible trends or popular artwork like Connection Lost and Ukraine, that receive frequent updates from users. Given the collaborative nature of r/place, pixels in these areas get painted the most.

### WHY 2: Why are these artworks getting so much attention?

- Both the “Connection Lost” and R/PLACEUKRAINE banners are symbolic and resonate with the r/place community, which represent shared experiences or global causes.
- The “Connection Lost” is a popular and recognizable symbol since it references the iconic message RuneScape players see when they are disconnected.
- The Ukraine banner was due to the support for Ukraine after Russia invaded Ukraine in 2022 worsening the war.



This graph shows the number of unique users across time for each of the top pixels. The sharp increase in the (0,0) pixel at 2022-04-04 could indicate an outlier or ‘Connection Lost’-related spike in user activity.

#### WHY 3: Why are people so engaged in this meme/artwork?

- Memes and political symbols are highly engaging because they reflect collective culture, drawing in users who want to be part of global trends or contribute to a shared expression of values.
- For example, the Ukraine banner became a symbol of support during a politically charged time, drawing widespread attention.

#### WHY 4: Why do people feel compelled to contribute to this specific piece?

- The visibility of these areas, along with their emotional and cultural significance, motivates people to paint these locations repeatedly. The r/place community thrives on collaboration, and contributing to well-recognized, culturally relevant pieces is part of the experience.

#### Why 5: Why is this behavior occurring on r/place in particular?

- r/place provides a unique platform for large-scale, real-time collaboration. The blend of user anonymity, the ability to reshape the canvas, and the ephemeral nature of the artwork encourages continuous engagement. These dynamics amplify the significance of certain locations, especially when they become symbols of broader social or political movements.

### **Conclusion**

The top three most painted pixels on r/place were located in culturally and politically charged areas, such as the “Connection Lost” banner and the “R/PLACEUKRAINE” banner. These locations saw frequent repainting due to their association with popular memes and global movements. By combining both quantitative analysis of the pixel data and qualitative contextual research, we gain a deeper understanding of the behavior behind these patterns.

The frequent painting of these pixels reflects broader trends in meme culture and digital collaboration, illustrating the powerful role that social media platforms like r/place can play in shaping online engagement. As we continue to monitor future events like r/place, it’s worth watching how new cultural trends influence pixel locations and the potential for certain regions to become cultural touchstones in future canvases.