## Analysis Of r/place 2022

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#### Introduction

Starting on April 1, 2022 r/place started user submissions to place a pixel on a canvas, 2000 x 2000, with a cool-down period of 5 minutes. Of the 4 million possible coordinates, the top 3 are (0, 0), (359, 564), and (349, 564) with 98,807, 69198, and 55230 pixel placements respectively.

# 1 Connection Lost (0,0)

### 1.1 Why (0,0)?

The most frequently placed pixel is in the upper left (0,0). With this in mind, I hypothesized that the corners were easy to reach and recognizable places to reach in the 2000 x 2000 grid. I tested this by checking the activity in the other corners. Since the canvas expanded twice, the other corners were only available after some expansions. This would explain why the upper left corner is at the top since it was always accessible. Trying the other corners, I found that the corners were generally hot spots. The bottom right, (1999, 1999), had 31437 pixels, bottom left, (1999, 0), 30882 pixels, and the top right, (0, 1999), 22763 pixels. This confirmed that users valued corners as locations to place their pixels.



Figure 1: Most recent common pixel placements in the top left corner at the 78th hour

### 1.2 Why This Corner?

Since corners are considered valuable spaces, what was created here? In the top left, users created the "Connection lost" sign from RuneScape which also appeared in the top left. This sign was created by r/2007scape community which maintained this image in r/place 2017 and continued this into r/place 2022. Furthermore, this iconic message appeared in the top left of RuneScape, so it was created in the same respective place. With the top left corner as the most available corner and r/2007scape determined to maintain this image, the conflict focused user activity onto (0, 0).



Figure 2: Clean "Connection Lost" Image r/place figtan

# 2 Cross Bones Eyes (349,564) and (359,564)

#### 2.1 10 Pixels Apart?

The next two most contested pixels are exactly 10 pixels apart in the x axis. Due to their close proximity, I hypothesized these two pixels correlated with the same art piece. So, I viewed the pixels placed around them to determine their correlation. From figure 3, it is clear that both pixels correlated to the eyes of the skeleton.



Figure 3: Most recent pixel placements in a 70x70 grid around centering on (349, 564)

#### 2.2 Why The Eyes?

Despite encompassing an area roughly 35 x 65 pixels, the eyes drew the most user placements. From this, I assumed that it may have been a conflict between two groups that wanted different eye colors for the skeleton. To verify this assumption, I looked into to the top colors used at the locations. If a conflict occurred, then the two top colors should be the same for both eyes and should be relatively much larger than the other colors. The right eye had 34726 black pixels placed, 26940 light blue pixels, and 1656 red pixels as the top three. The left eye had 27804 black pixels placed, 19404 light blue pixels, and 2120 red pixels as the top three. From this, it can be seen that black and light blue were orders of magnitude greater than the next most common color and that it was likely the product of the conflict between two groups.

Figure 4: Animation of most common placements around the left eye.

Note: The center of the eyes remain black during the animation as it was most fiercely defended, but this can be seen at other parts of the eyes as users were more lax around these parts

### 2.3 Why Black And Blue?

The original art piece is One Piece's Crossbones maintained by r/onepiece and the other group is from r/Undertale. The r/Undertale community attempted to convert every skeleton into Sans with blue eyes and they focused on Crossbones. The fierce defense and attempt to convert Crossbones drove user activity specifically at the eyes.