

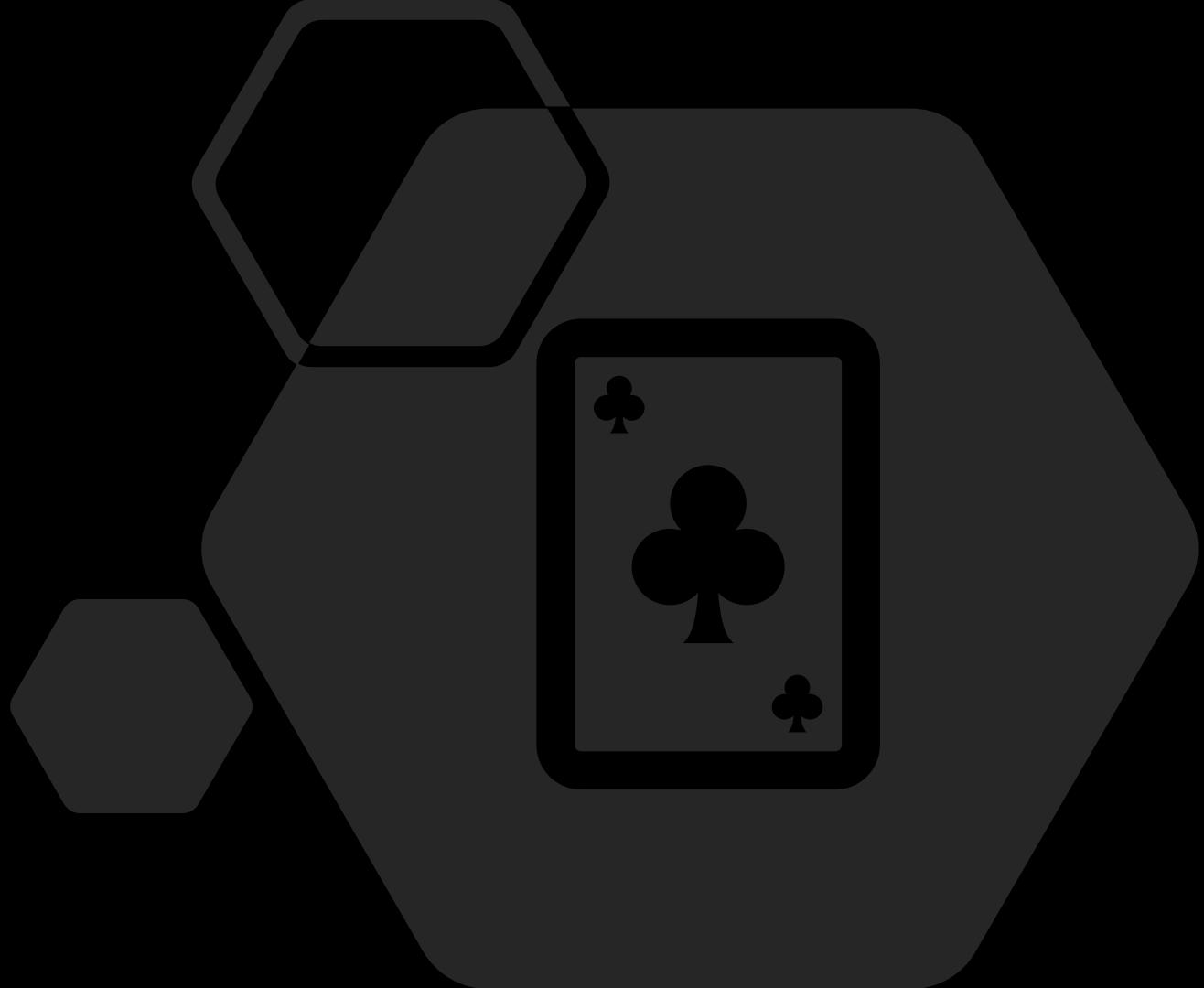
Jeu de la pandémie

Alexis

Dilyara Babanazarova

Simay Celik

Yanni Lefki



Notre thème

- Propagation d'un virus dans une population

0	0	0	0	0	0	0	0	-	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	-	0	0	0	0	0	0	0	0
0	0	0	0	x	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	-	0	0
0	0	-	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

x : infecté

0 : pas infecté

- : immune

Notre problématique

- La contagiosité d'un virus affecte-t-elle la vitesse de la propagation du virus?

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	X	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	X	0	0	0	0	0	0
0	0	0	X	X	X	0	0	0	0	0
0	0	0	0	X	0	0	0	0	0	0
0	0	0	0	0	X	0	0	0	0	0
0	0	0	0	0	0	O	0	0	0	0
0	0	0	0	0	0	0	O	0	0	0
0	0	0	0	0	0	0	0	O	0	0
0	0	0	0	0	0	0	0	0	O	0
0	0	0	0	0	0	0	0	0	0	O

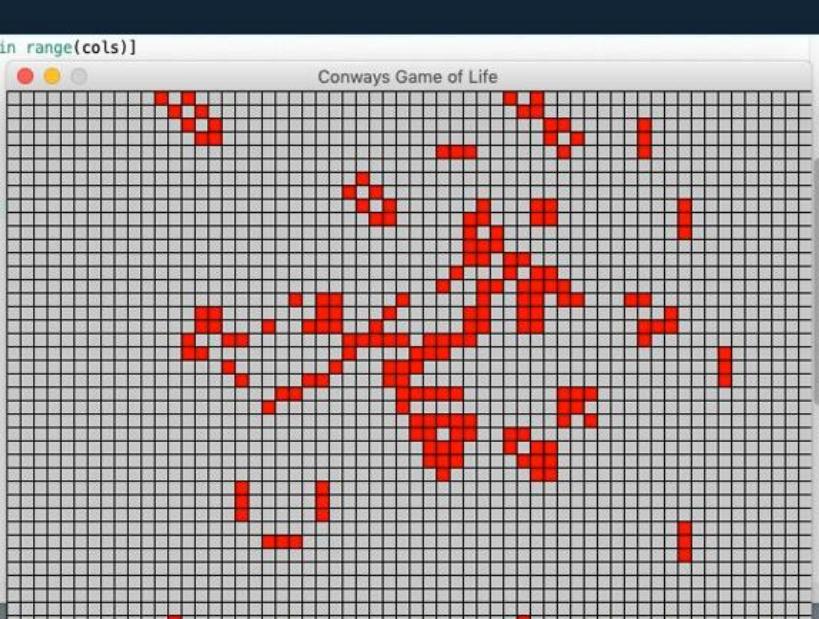
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	O	X	0	0	0	0	0
0	0	0	X	X	X	X	0	0	0	0
0	O	X	X	X	X	X	X	0	0	0
0	0	O	X	X	X	X	X	0	0	0
0	0	0	O	X	X	X	X	0	0	0
0	0	0	0	O	O	O	O	0	0	0
0	0	0	0	0	O	O	O	0	0	0
0	0	0	0	0	0	O	O	0	0	0
0	0	0	0	0	0	0	O	0	0	0
0	0	0	0	0	0	0	0	O	0	0

Hypothèse

- La vitesse de la propagation d'un virus est liée à sa contagiosité.

Comment expérimenter?

- A l'aide du jeu de la vie, observer la contamination de la population au cours du temps.
- Le concept du jeu de la vie :



The image shows a Processing sketch window titled "Conways Game of Life". On the left, the code for the sketch is displayed in a text editor. The code initializes a grid of random values, sets a frame rate of 30, and defines a draw function. The draw function iterates over each cell in the grid, drawing a red square if the value is 1 or a white square with a black border if the value is 0. It also updates the next generation by counting neighbors and applying the rules of Conway's Game of Life. On the right, the actual game board is shown as a 2D grid of squares. Red squares represent live cells, while white squares with black borders represent dead cells that have been born. The pattern is highly complex and organic, showing various cellular structures like gliders and spaceships.

```
gol
grid = [[floor(random(2)) for _ in range(rows)] for _ in range(cols)]
next = [[0 for _ in range(rows)] for _ in range(cols)]
frameRate(30)

def draw():
    global grid, next, cols, rows
    background(255)
    for i in range(cols):
        for j in range(rows):
            x = i * resolution
            y = j * resolution
            if grid[i][j] == 1:
                fill(255, 0, 0)
                stroke(0)
                rect(x, y, resolution, resolution)
            else:
                fill(200)
                stroke(0)
                rect(x, y, resolution, resolution)

    # Nächste Generation
    for i in range(cols):
        for j in range(rows):
            state = grid[i][j]
            neighbors = count_neighbors(grid, i, j)
            if ((state == 0) and (neighbors == 3)):
                next[i][j] = 1
```

"Conways Game of Life" by
Schockwellenreiter is licensed
under CC BY-NC-ND 2.0

Comment expérimenter?

- Faire varier les conditions
 - les coordonnées du premier infecté
 - nombre de contamination par personne
 - densité de population
 - regroupement des immunes

Merci beaucoup