Computer Programming
Spring 2020

CSI2100-01 Lab 11
Cellular Automaton

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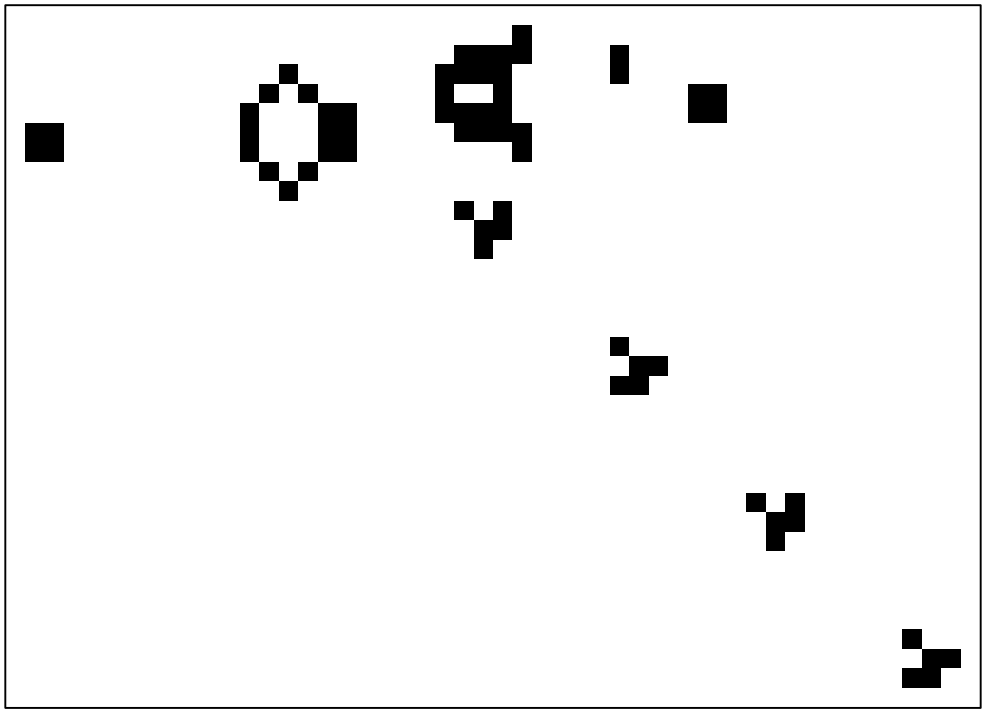
Overview

- Rules of Cellular Automaton
- Examples

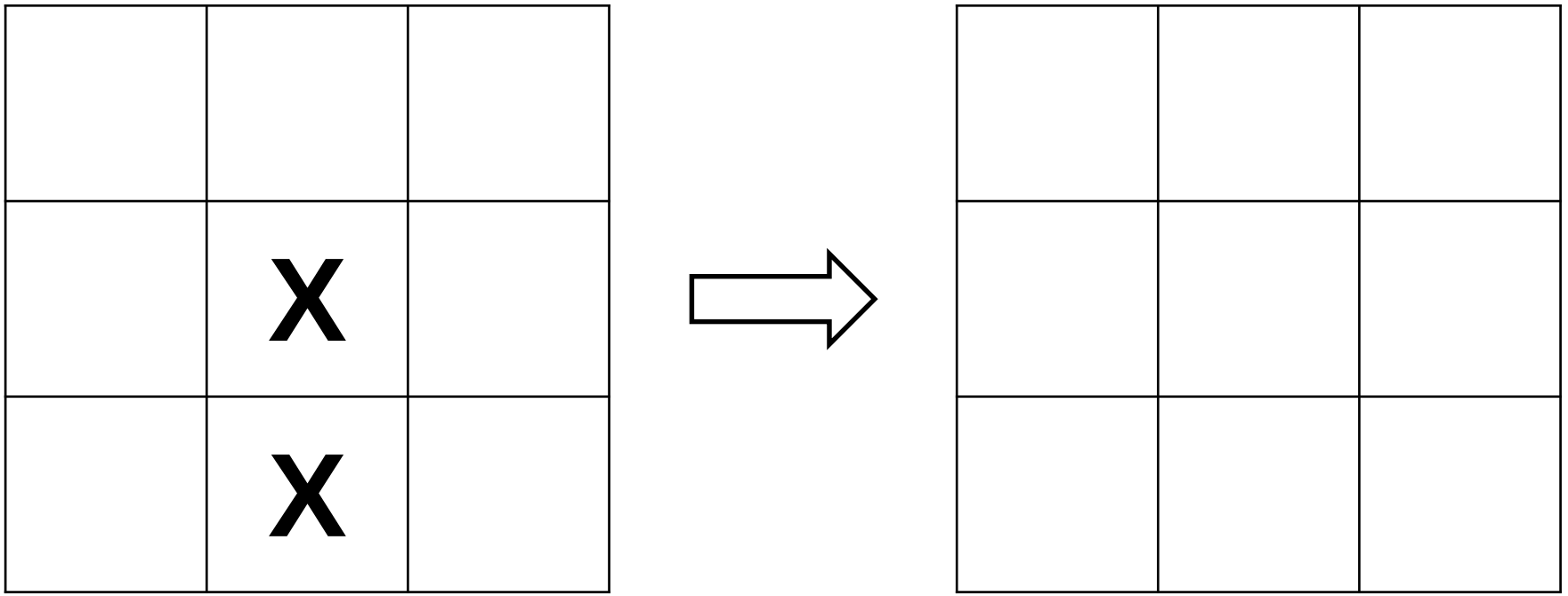
Glide and Gun



https://en.wikipedia.org/wiki/Cellular_automaton#/media/File:Gospers_glider_gun.gif

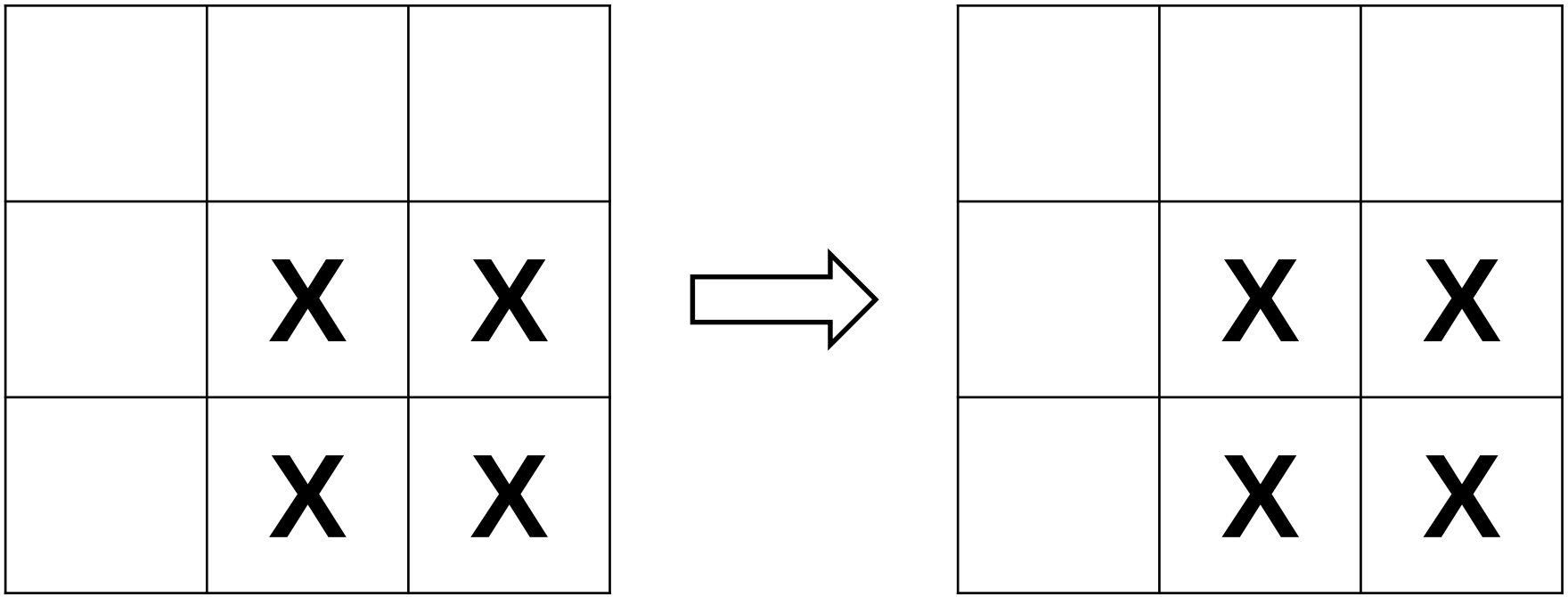
Rules of Cellular Automaton

1. Any live cell with fewer than two live neighbours dies, as if caused by under-population.



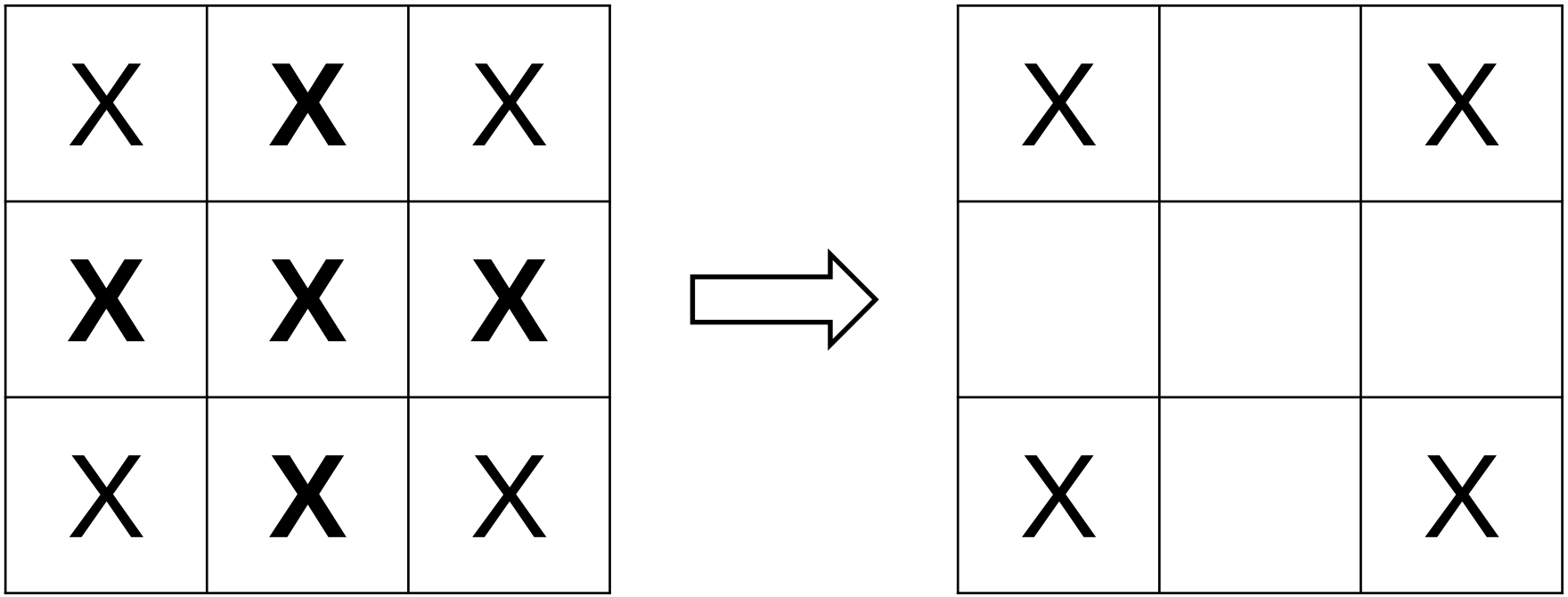
Rules of Cellular Automaton

2. Any live cell with two or three live neighbours lives on to the next generation.



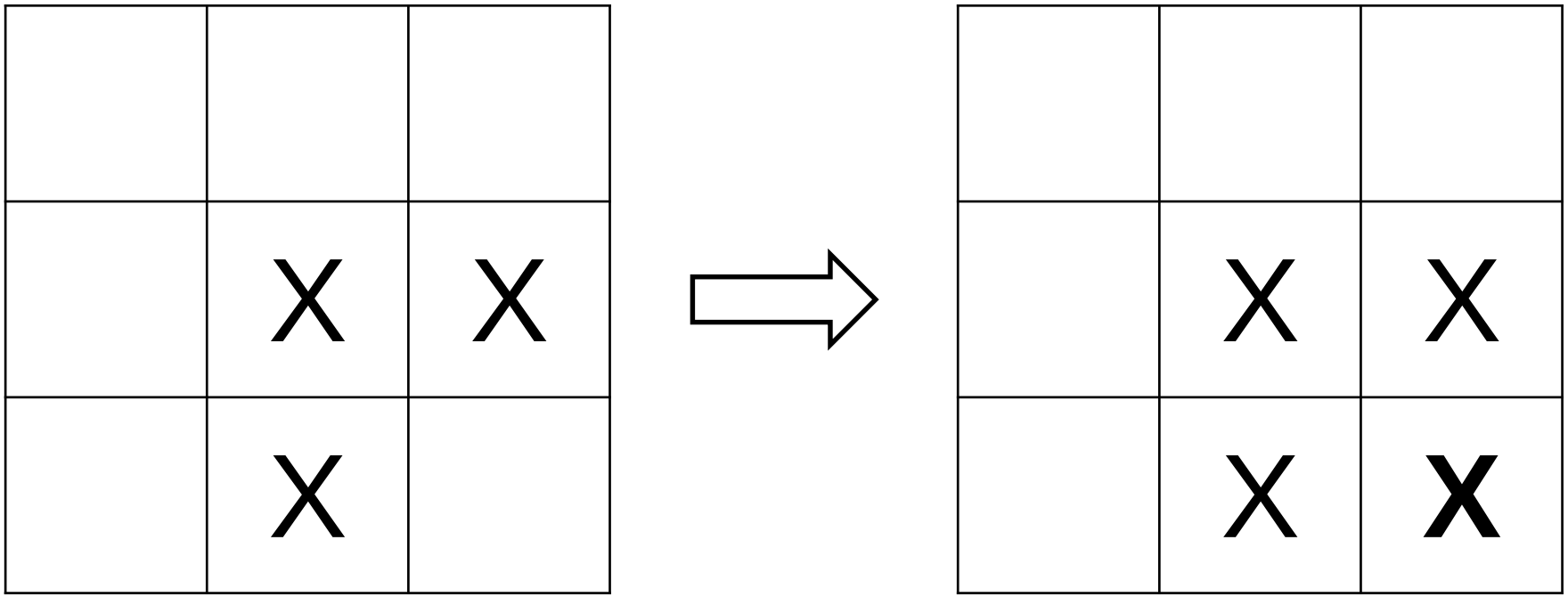
Rules of Cellular Automaton

3. Any live cell with more than three live neighbours dies, as if by overcrowding.

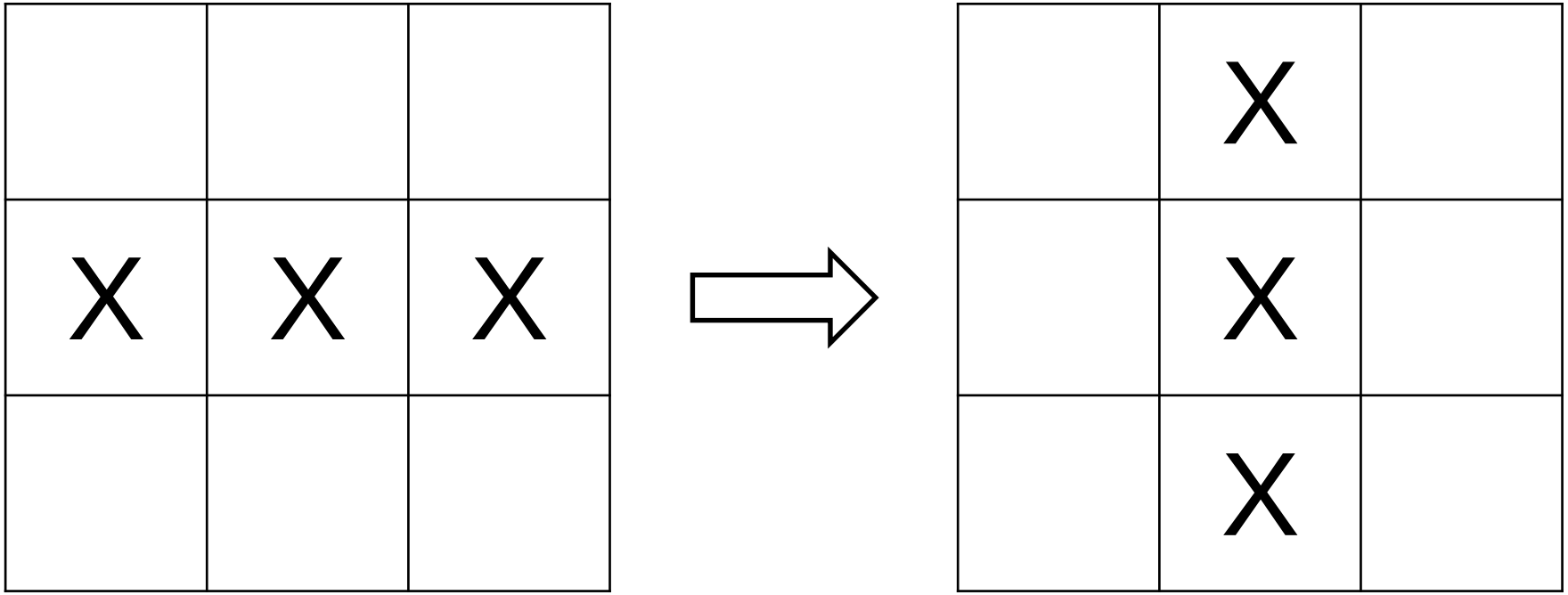


Rules of Cellular Automaton

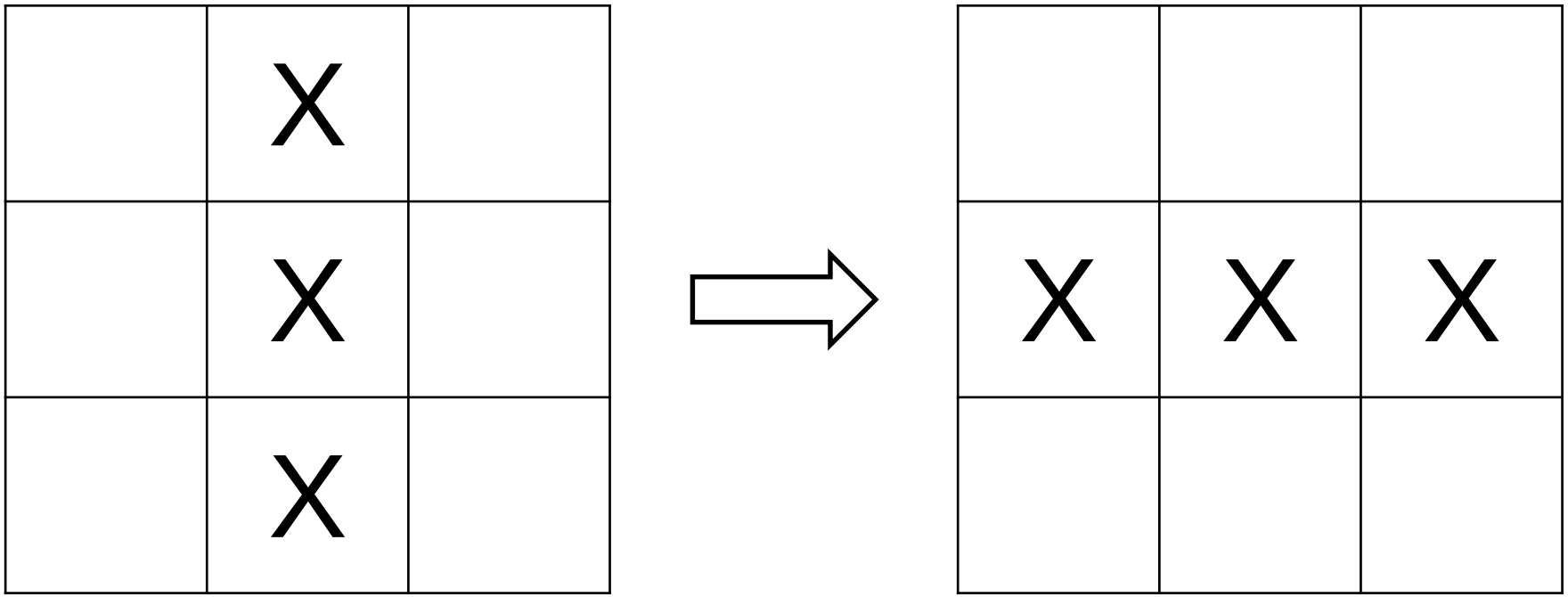
4. Any dead cell with exactly three live neighbours becomes a live cell, as if by reproduction.



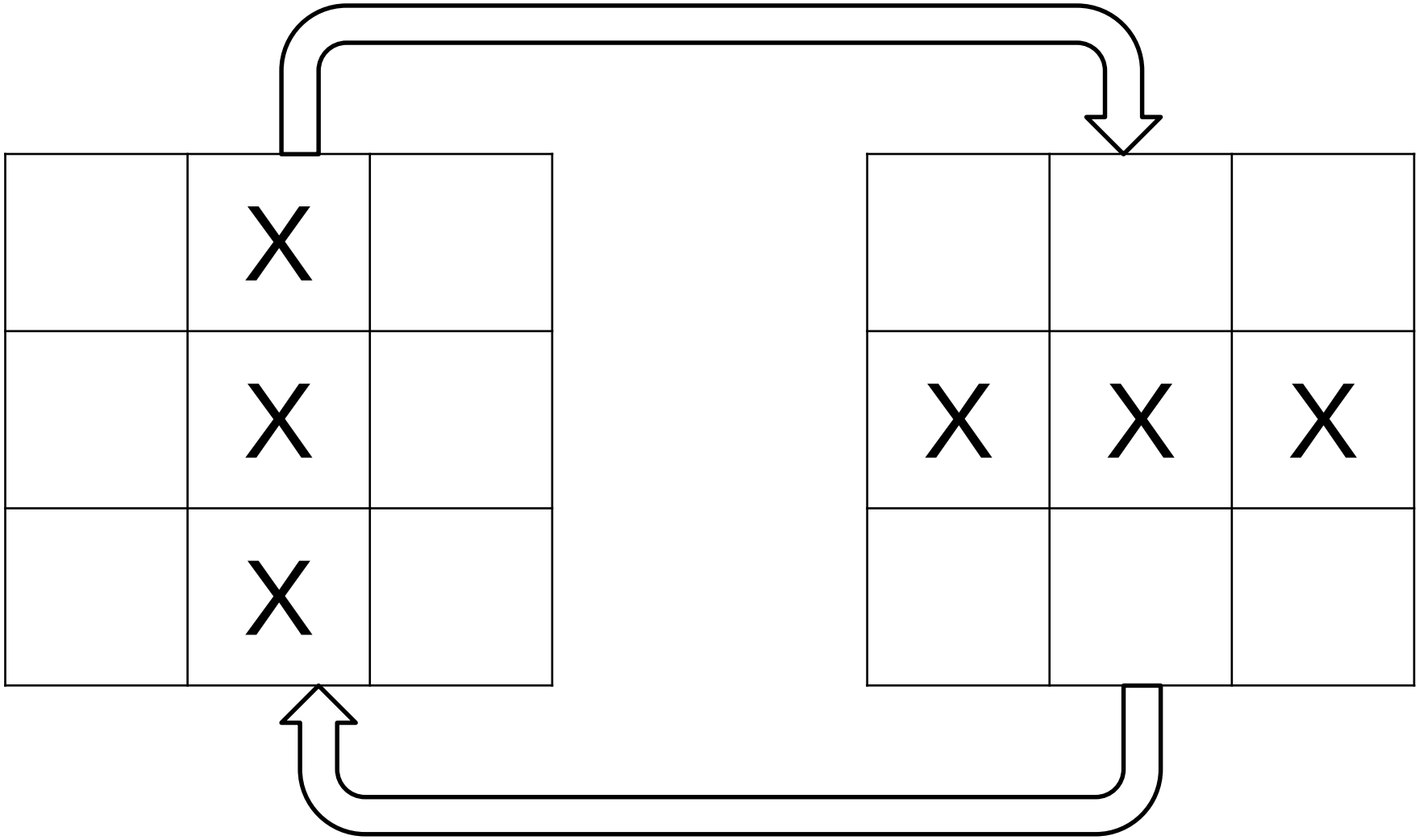
Example 1



Example 2



Example 1 and Example 2



20x20 Example