

Code Retreat @ Outbrain

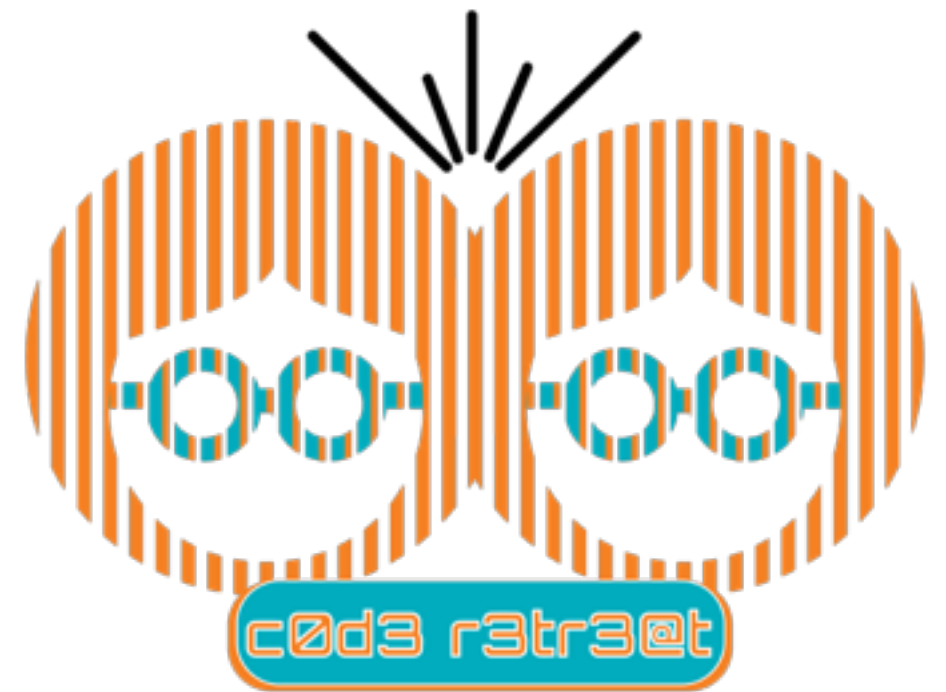
Ping-Pong
Pair-Programming

CR @ OB

- 1 hour session every 2 weeks
- code-retreat@outbrain.com mailing
- hip chat room code-retreat
- What do I get for X ?
 - Have Fun!
 - Improve your coding skills
 - Learn from others
 - Share with others
 - Play with new stuff

Today

- Conway's Game Of Life
- Ping Pong Pair-Programming
- (+TDD)



Pair Programming

- Driver - write the code
- Observer - review the code in real time



Pair Programming

- programmer != pair programmer
- צריך שניים לטנגו
- Is it a waste of time?
 - Are code reviews required?
- Beware of reducing ownership and self-confident

Ping-Pong Pair

Programming styles

- Ping-Pong == replace roles often
 - A writes a new test and sees that it fails.
 - B implements the code needed to pass the test.
 - B writes the next test and sees that it fails.
 - A implements the code needed to pass the test.
 - And so on. Refactoring is done whenever the need arises by whoever is driving.

Ping-Pong Pair Programming styles

<u>member 1</u>	<u>member 2</u>
write test	
	make test green
write test	
	make test green

<u>member 1</u>	<u>member 2</u>
write test	
	make test green write next test
make test green write next test	
	make test green write next test



TDD - Reminder

- Write a failing test (**red**)
- Make the test pass (**green**)
- Refactor code

REPEAT!

Pair-Programming - Tips

- As always in code retreat - Work on quality, not capacity
- Agree on one tiny goal at a time
- Rely on your partner
- Support your partner
- Talk a lot
- Sync up frequently
- The person who knows less about the system or language should do most of the driving



Problem to solve:

Conway's Game of Life

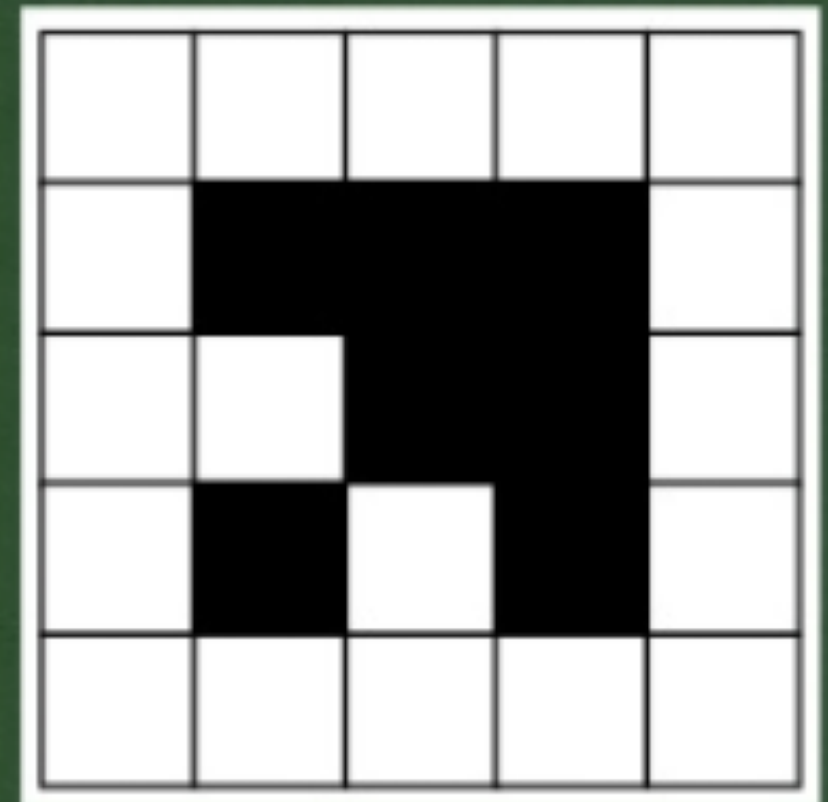
Zero-player game

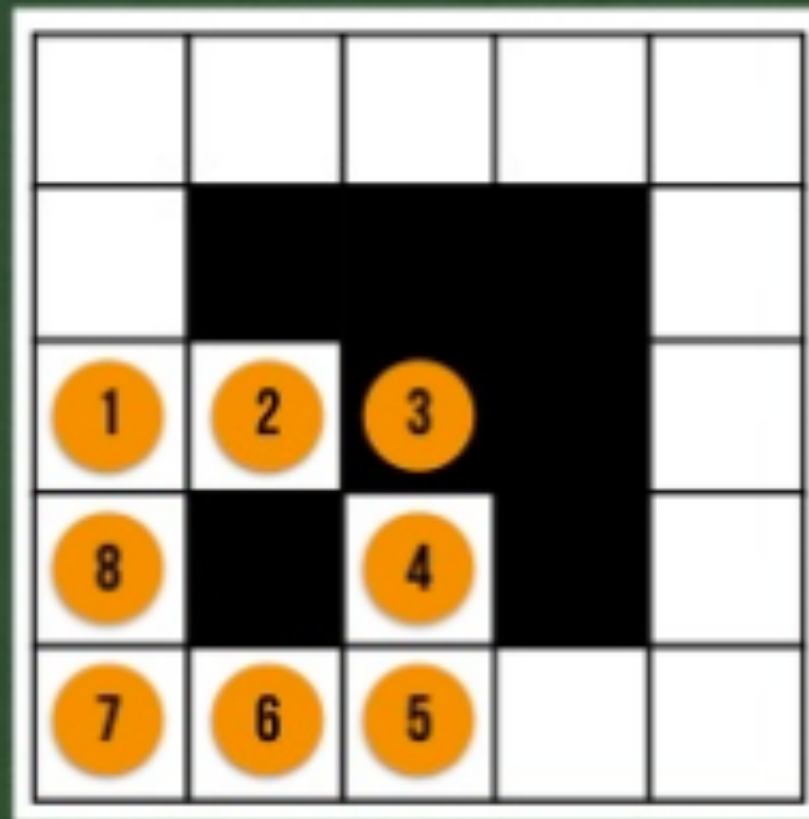
Cellular automation system

Devised by John Horton Conway

Evolution is determined by initial state

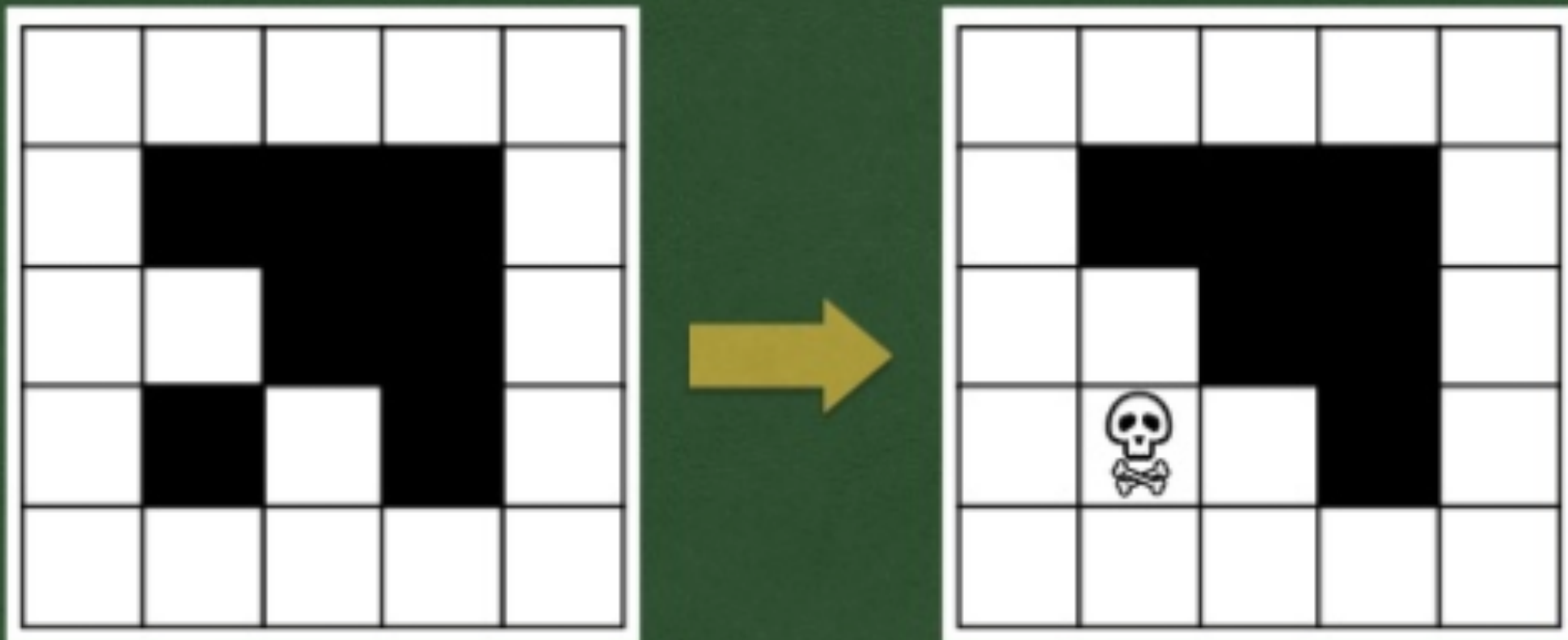
Each cell can be alive or dead





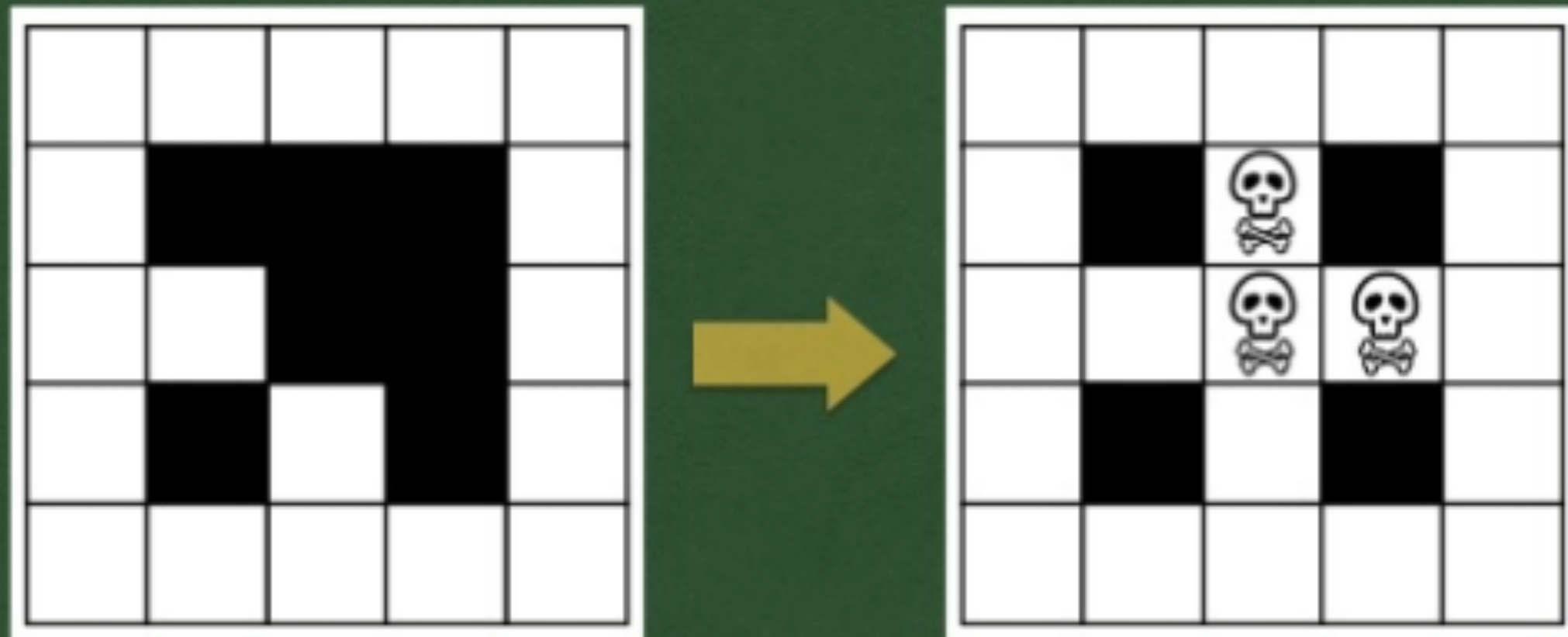
Each cell has 8 neighbours
and follows 3 rules

Rule 1



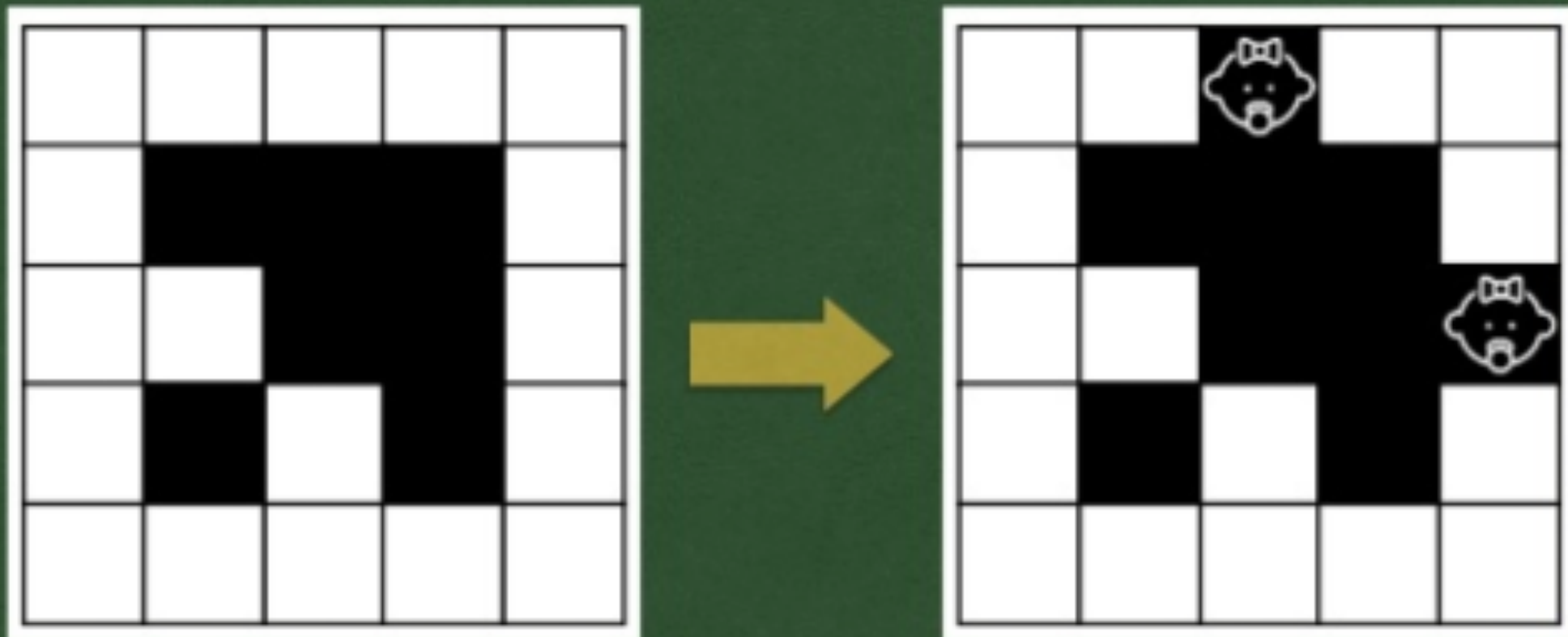
Any live cell with **fewer than 2** live neighbours
dies of loneliness

Rule 2



Any live cell with **more than 3** live neighbours
dies of overcrowding

Rule 3



Any dead cell with **exactly 3** live neighbours
comes to life of warmth

Enjoy!

<https://www.random.org/lists/>

Links

- <https://github.com/oshai/game-of-life>
- https://en.wikipedia.org/wiki/Conway%27s_Game_of_Life
- <http://www.slideshare.net/lemiorhan/coderetreat-practice-to-master-your-crafts>
- <http://www.wikihow.com/Pair-Program>