

“If they build it...They will
code”

Lessons from a high school code club

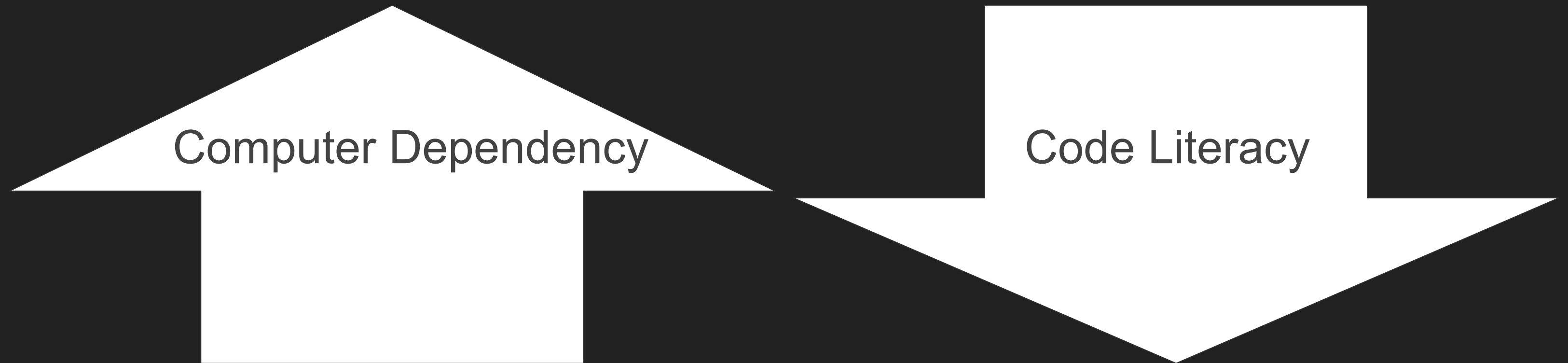
@rony_sheer

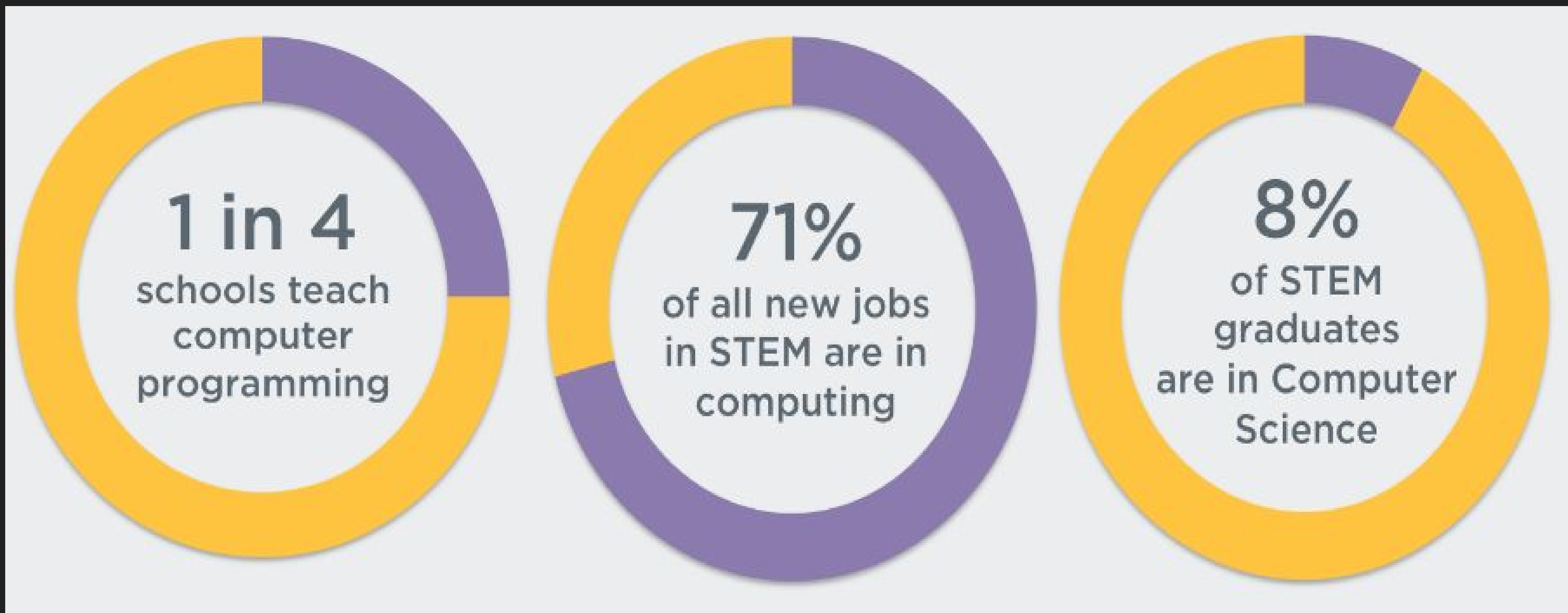


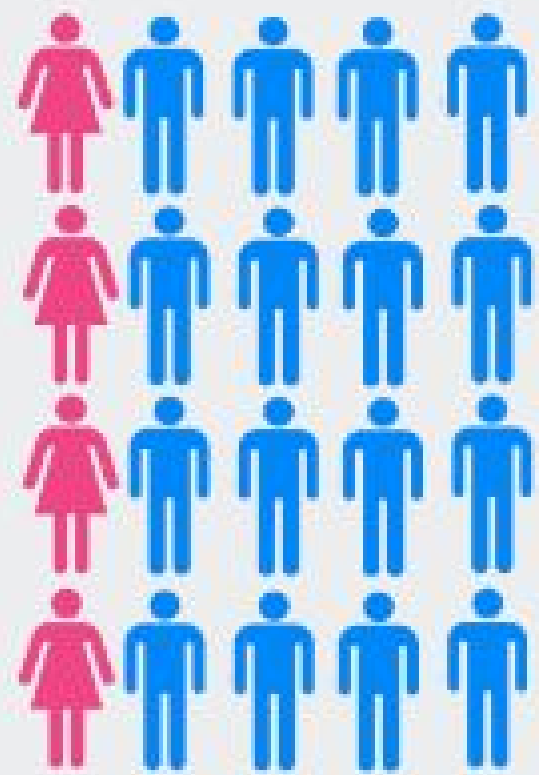
The classroom



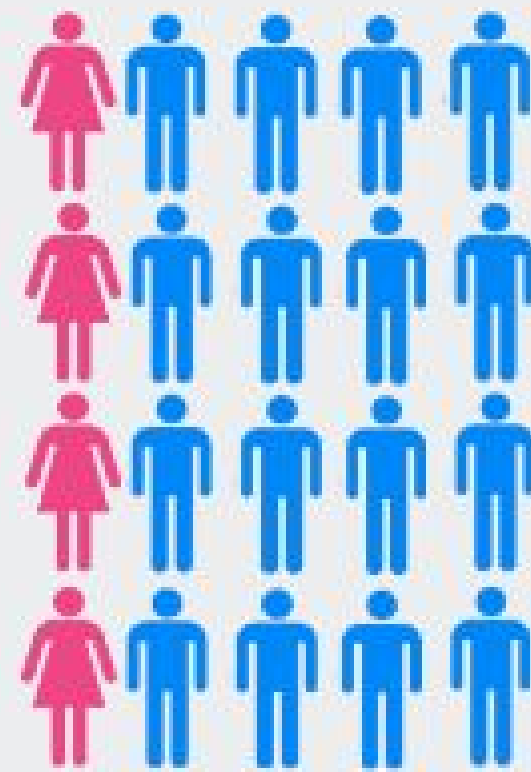
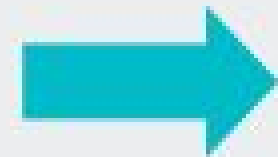
The problem.



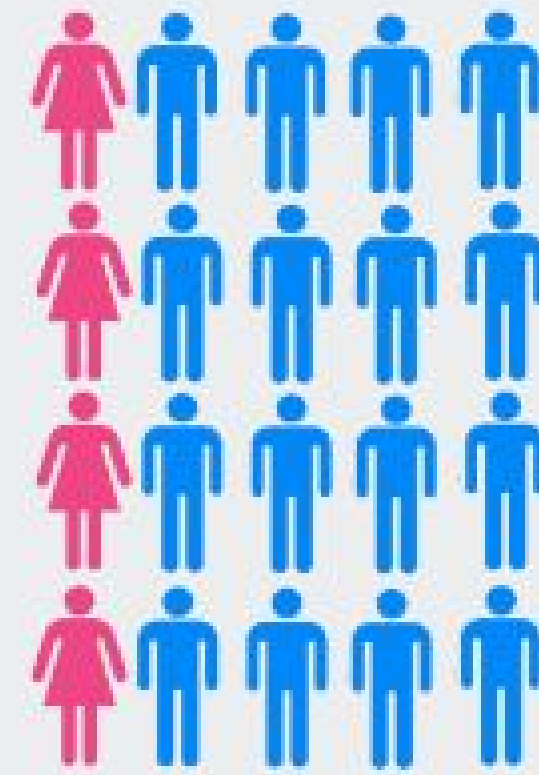
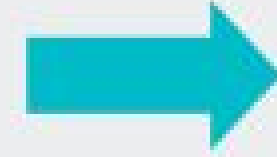




High school
computer
science



University
computer
science



Software
workforce

- Not enough developers
- Higher dependency on others to solve one's problems

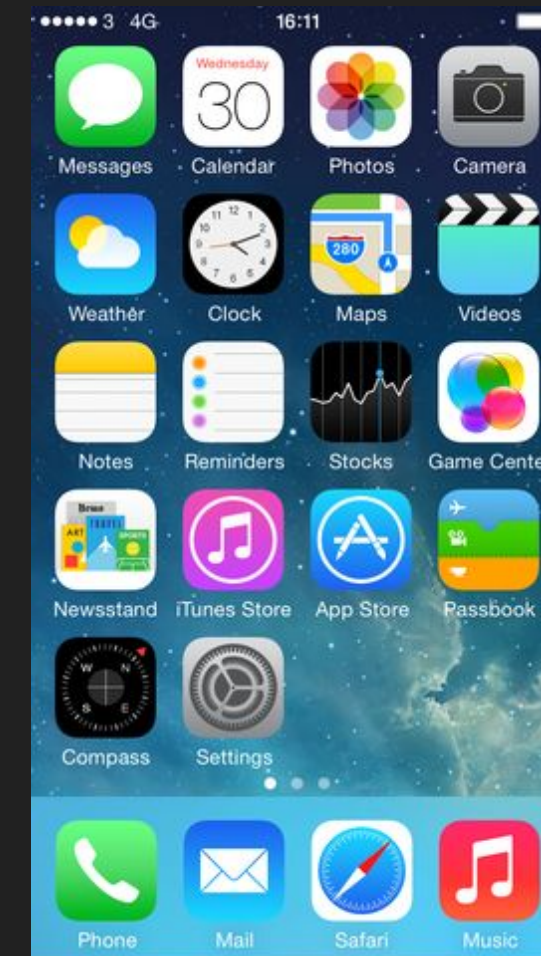
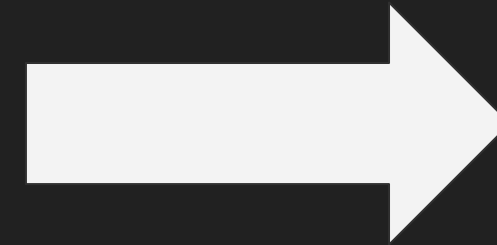


Why more demand?

Why less supply?

Starting MS-DOS...

C:\>_





Ease of use + abundance =
Cultural problem solving degeneration

Education system's solution:

Code... Code... Code...

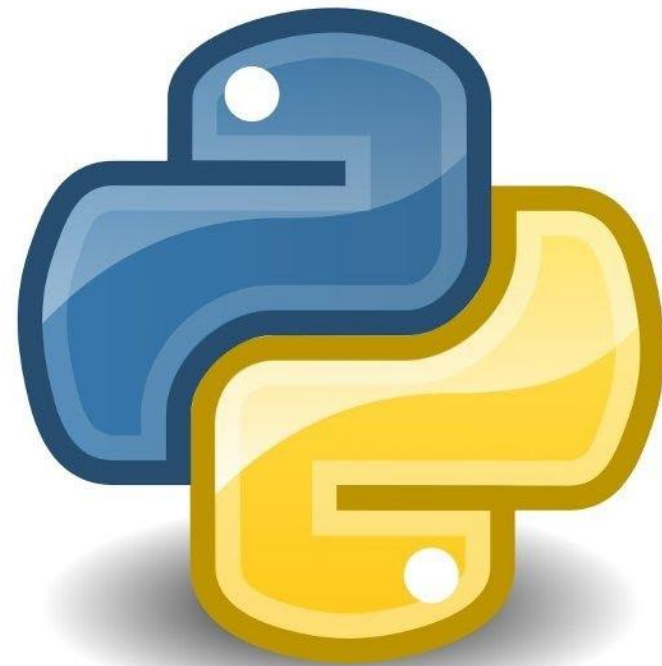
Code=Science

Code=Better income

Code=Programming

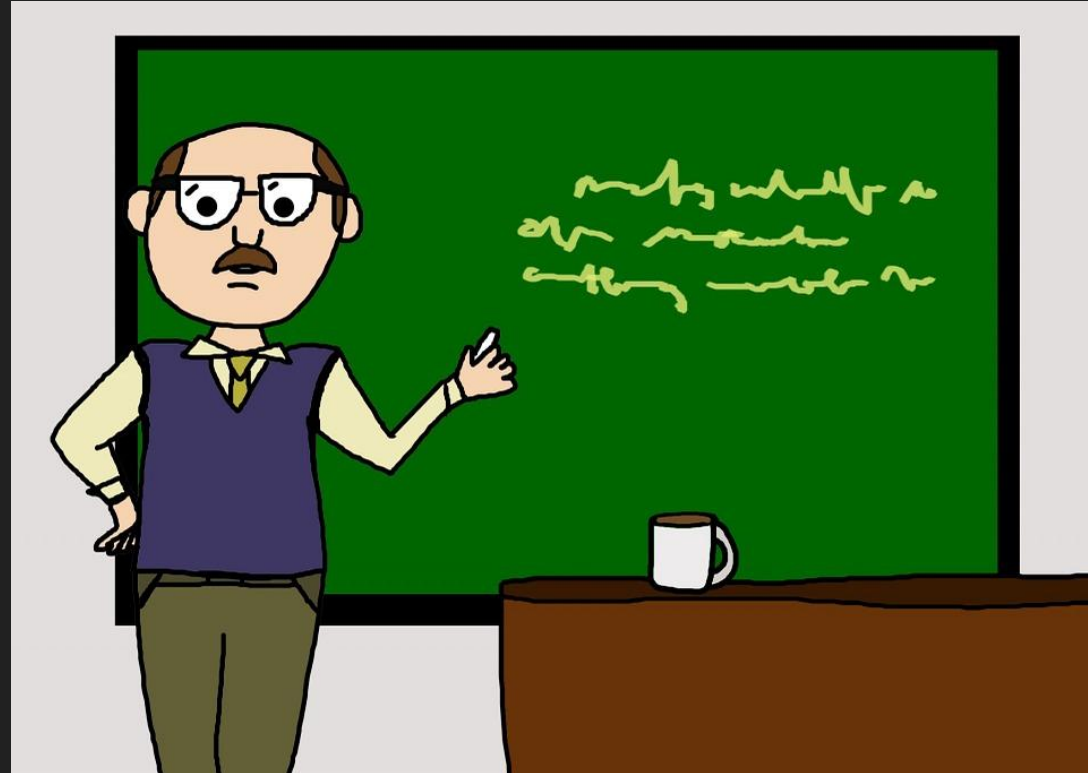
Code=Creativity

We can change that... perhaps.



Who is this guy?

- I'm a teacher
- I'm part of a SimplifEd (we let teachers focus on teaching)
- We are a Python/Django shop



Simplifed

www.simplifiedlms.com

A school that is not a school. A class that is not a class.



The challenge

27 students = 3 start-ups => learn software development

The challenge

27 students = 3 start-ups => learn software development

Yeah, right

Teach making
Not coding

Python is perfect for this

Python is is not often used

```
class HelloWorldApp {  
    public static void main(String[] args){  
        System.out.println("Hello World!");  
    }  
}
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```
print('Get down to business')
```

Javascript

```
console.log('Get down to  
\ business');
```


footguns

```
console.log(this);
```



- Whitespace helps teach control flow
- You can build meaningful software within a lesson


```
import ...
```

```
thirty_minutes = ...
```

```
while (break_count < total_breaks):
```

```
    time.sleep(thirty minutes)
```

```
    webbrowser.open("https://www.youtube.com/...")
```

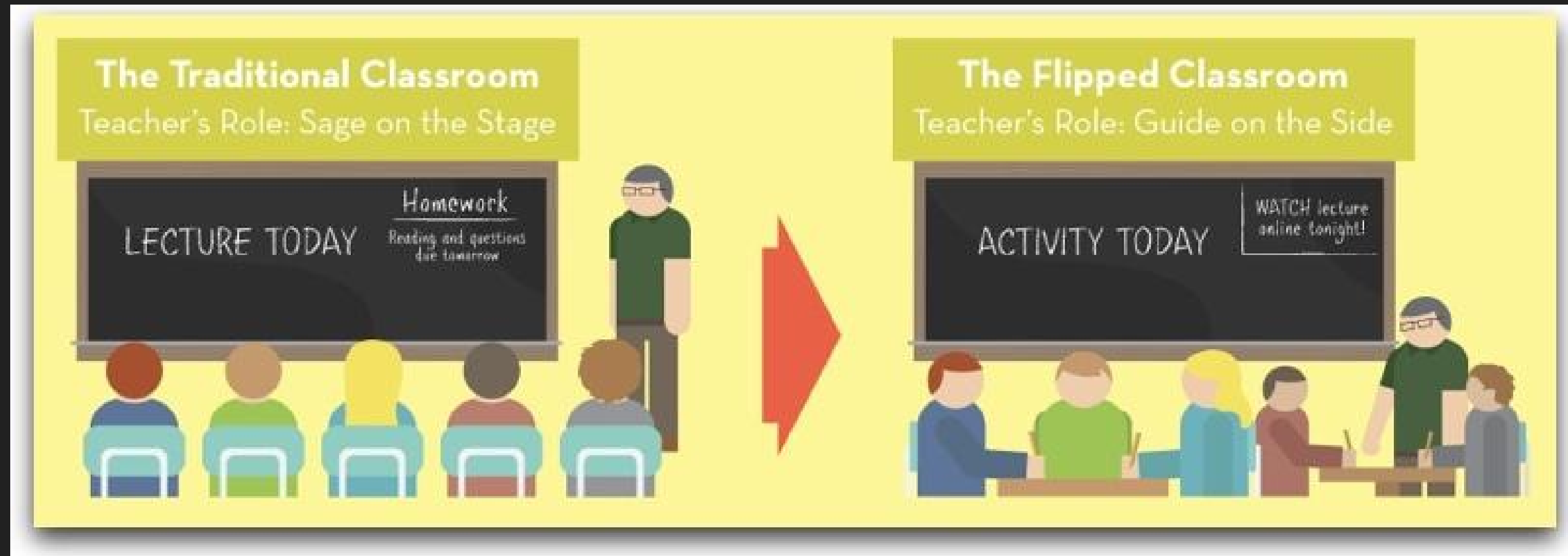
```
    break_count = break_count + 1
```

Sugar Free

```
break_count = break_count + 1
```

We like things that we have built

Flipped classroom



Let students teach

Is this a classroom?



The three pillars of motivation

- Autonomy
- Mastery
- Purpose

scope reasonably

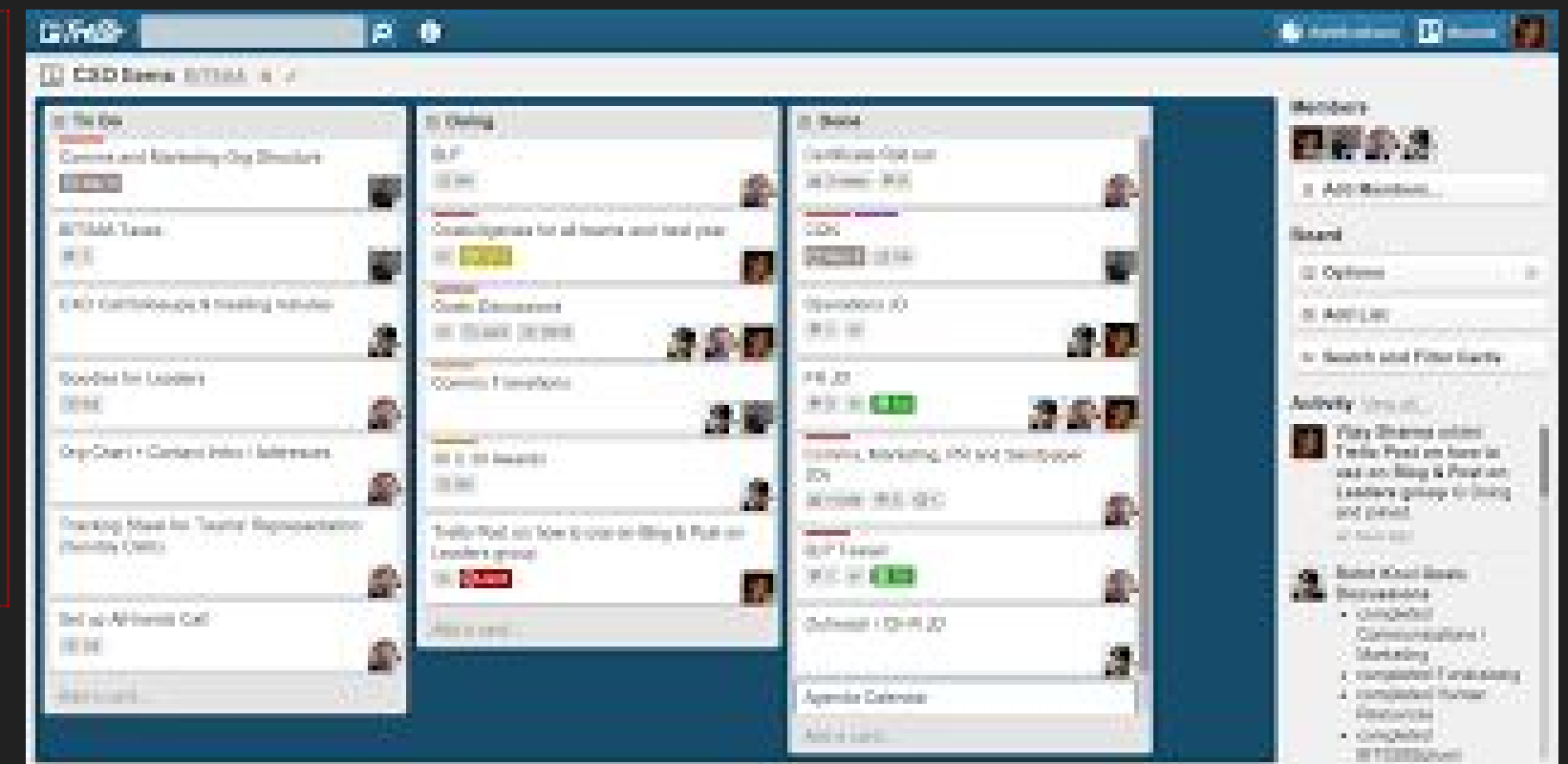
“Programmers are irrational and emotional people”

Douglas Crockford

Agile-like system = magic



Pomodoro
TECHNIQUE



Teach effective googling

Acknowledge work

Basic version control

Inspiration

Django Girls

Scratch

Python Community

Come code with us, or go code with other students

@rony_sheer