

# Flipped Classrooms

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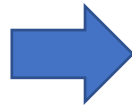
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# Session Plan

- What are flipped classrooms?
- What could you achieve ...
- ... in large or small groups
- How to achieve it

# Traditional classroom

First point of contact  
with material



Deepening of Learning

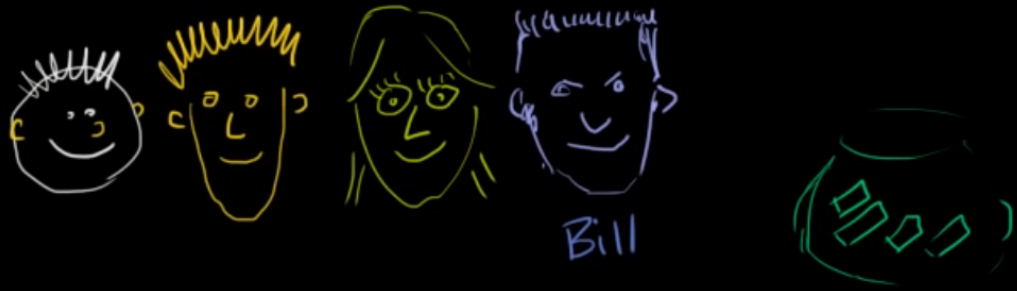
Homework,  
Revision,  
Tutorials, etc.

How did we get there?

- We feel that it is increasingly difficult to motivate students to prepare
- Our (my?) understanding as lecturers was that as a conveyer of knowledge

# Disruptive technology

- Online Clips (easy to produce)
- One of the first radical uses: Khanacademy.org
- Today you will find educational YouTube clips to almost any topic
  
- How should this change our teaching/learning approach?
- How can it change the classroom?



Assume truly random

$$P(\text{Bill not picked on a night}) = \frac{3}{4}$$

$$P(\text{Bill not picked 3 nights in a row}) = \frac{3}{4} \cdot \frac{3}{4} \cdot \frac{3}{4} = \frac{27}{64} = 0.42$$

This seems like if you're assuming truly random it's

There are many clips on the Khan academy website. This is one on hypothesis testing (click the image for link)

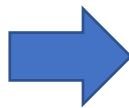


The entire TED talk is interesting, but the section I refer to starts at 14:20min ([click image for link](#))

# Traditional vs. flipped classroom

First point of contact with material

Deepening of Learning



Homework/  
Revision/  
Tutorials



Homework/  
Revision/  
Tutorials

# Online clips

- I think that much of what we currently do in Lectures can be better delivered/explained through Online Clips
- Online clips are great for
  - explaining complicated/formal matters
  - allowing students to slow down and speed up
  - being available all across the term
  - Incorporating software work/demos
  - Incorporated MC Questions
- But considerable up-front investment
- Requires clear understanding by students that online delivery is integral to course and needs to be consumed weekly

# What to do in lectures

- Very much depends on your course unit and your students
- Activities that are interactive
  - Perhaps slow walk through example
  - Discussion of empirical applications
  - Link from theory to reality
  - Clicker Sessions
  - Students working on small problems
  - Classroom experiments
- Focus on intuition, not technicalities (if the latter are important part of syllabus think whether online clips may be more useful or if textbooks do a good job)
- And more than anything else, BE ENTHUSIASTIC, motivate students to want to learn more

What is your comparative advantage as a lecturer??!!

# Flipped tutorials

- Give students tutorial questions
- Let students watch the “tutorial solutions” video first
- Give students new set of questions to solve in class
- Let them work in small groups
- GTA is there to help and provide solutions (although not worked)



Before  
tutorial

During  
tutorial

# The production process

1. Idea for a clip  
planned to create space in lecture or  
from student suggestion
2. Create a script
3. Record the visual
4. Cut and Speed up the visual
5. Voice-over
6. Upload