Recording Your Lectures for Fun and (Possible) Profit

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ABSTRACT

Recording your lectures may seem overwhelming, but in reality is actually quite easy to do.

1 INTRODUCTION

This paper advocates that every CS teacher record their lectures. Recording your lectures has many benefits for the students, some benefits for you [2]

This paper is intended for an audience of teachers, primarily people who teach using a laptop. While this text is geared towards a tech-savvy audience of Computer Science educators, I believe

- In Section 2, we discuss the motivations for this paper and for recording your lecture

2 MOTIVATION

Rec

The idea of recording all of a professor's lecture in high fidelity is something that has become possible only The emergence of codecs such as AV1 (not to be confused with .avi files) means that even as storage becomes more cheaper and plentiful, high quality files are getting smaller and smaller [1], with less restrictive licenses. Consumer cameras get better every year and can record in UHD.

2.1 Student Reference and study aid

Ease of review eases Note taking pressure

2.2 Regular Illnesses and Outbreaks

Our students are coming under more and more pressure to succeed. Enrollments in computer science are up across all universities, which means more students in a class. These increases in students and a drop in vaccincation rates accross the US have lead to outbreaks at numerous universities such as X at ABC, and a Mumps outbreak at Temple University.

Sometimes, the only

These outbreaks are in addition to regular infections, like influenza.

Students often come to class sick CITE, thus infecting other students.

2.3 Use by instructor

Illness of instructor, Experiment with flipped class room.

2.4 Effects on Attendance

2.5 Perceived Barriers to Adoption

I'm scared of being on camera because I mess up.

3 ENTERPRISE OPTIONS

I've listed this first because this is probably the most straightforward option. Your institution may be paying for this already.

options like panopto offer a "one stop shop" hosting your data AND your

3.1 Cons

Your students will need to access

4 OPEN SOURCE RECORDING

5 REQUIRED HARDWARE AND EQUIPMENT

A modern laptop is all that is required.

5.0.1 Example laptops.

5.0.2 Specs. Regardless of the hardware, using an industrial strength IDE such as IntelliJ or Eclipse and any recording software can be taxing to any laptop. Two ways to mitigate this is to have the IDE open before recording. Alternatively, migrate away from Intellij, Eclipse, and the like and use a more lightweight editor, such as Sublime Text, Atom, Visual Studio Code, Geany, or the old classics of Vim and Emacs.

If you are just recording powerpoint slides or capturing the board with the webcamera, you should run into no difficulties.

I also highly recommend having your laptop plugged in so that you get maximum performance.

5.1 Additional Equipment

5.2 Concerns

- Your hardware must be good
- Student questions can't be heard by your mic.

6 EDITING

7 HOSTING

7.1 YouTube

7.1.1 Positive Considerations. Google is now in charge of making sure your stuff is accessible.

Youtube doesn't go down very often. But it does sometimes [3] and (June 2: 3:30 Outage) [4]

7.1.2 Negative Considerations. It's Youtube
Youtube comments are their own special hell.
Reuploading
Legal ramifications of double dipping

7.2 Vimeo

7.2.1 Positive Considerations. Professional looking Customizable embedding

7.2.2 Negative Considerations. V
Pay for hosting
Also goes down occasionally.

7.3 Drive

7.3.1 Negative Considerations. You may have to pay for hosting

7.4 I'LL DO IT MYSELF

7.4.1 Pros. TOTAL CONTROL

7.4.2 Cons. Really? Where are you going to find the time? Home server? You probably won't have the bandwidth Server at school? IT deptartment is going to LOVE you.

8 MY IMPLEMENTATION AND STUDENT FEEDBACK

9 RECAP

10 A NOTE ON LICENSES

Your school may not like dicovering that the content of their classes is now available online.

11 A NOTE ON ACCESSIBILITY

REFERENCES
[1] Dan Grois, Tung Nguyen, D. M. Performance comparison of av1, jem, vp9, and hevc encoders, 2018.
[2] Jr, N. My article, 2006.
[3] Martinez, P. Youtube fixes "access issues" that caused widespread outage, oct 2018.
[4] Sloss, B. T. An update on sunday's service disruption, 2019.