

Easy recording of lectures

Murdoch J. Gabbay

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Introduction

My name is Jamie Gabbay.

I've been recording my undergraduate lectures for six or seven years.

You can view results here:

`www.macs.hw.ac.uk/~gabbay/201516-F28PL/index.html#lectures`

Let's take a look.

Workflow (1 course = 36 loops; steps 3-9 are in-lecture)

1. Obtain video camera, tripod, SD card, & online storage. (H)
2. Charge video camera and insert empty SD card. (E)
3. Go to lecture theatre. Designate a student sitting 4-5 metres as 'camera-person', to pan camera as needed. (H)
4. Switch camera on. (E)
5. Place camera on tripod on desk in front of student. (E)
6. Level and zoom to frame. (E)
7. Push button to start recording. (E)
8. Deliver lecture. (E)
9. Push button to stop recording. Go to office. (E)
10. Remove SD card from camera and insert into computer. (E)
11. Copy file from SD card to computer. (E)
12. Run 'compress for web' script. (H)
13. Upload compressed file to my teaching webpages. (H)
14. Clear SD card. Go to step 2. (E)

H=Hard, E=Easy

Arguments

- ▶ **Just use a webcam; they cost, like, 15 pounds in PC World.**
A webcam requires a computer attached so your video camera is now a computer with a webcam attached. This makes steps 1, 2, 4, 5, 7, and 9 Hard. Step 6 is Impossible (webcams don't zoom).
- ▶ **The AV department has video recording facilities.**
Like I want to book somebody to arrive, set up, and record every one of my lectures.
And anyway, the AV facilities (when I last checked) recorded interlaced video to VHS cassette. That makes steps 11 and 12 effectively impossible.
It's just not practical!

What equipment do you need?

- ▶ Not much. Any point-and-shoot camera with zoom will do; you can buy one for 100GBP.
- ▶ **Watch out:** in the EU, point-and-shoot cameras may have a 15, 20, or 30 minute recording limit (EU regulation). The US and Asia don't. I imported my Casio Exilim camera from the US for this reason. I think it cost me 80GBP. The key issue with cheap point-and-shoots tends to be sound. A directional mic is helpful.
- ▶ Or, get a dedicated video cam. Like the Panasonic I currently use.
- ▶ 720p or even 480p is perfectly adequate, but students may struggle to make out text. 1080p is better.

Will students turn up?

- ▶ Student attendance starts off around 75% and drops to 50% by the end of the semester if I record lectures.
- ▶ If I don't record lectures, student non-attendance starts off around 25% and rises to 50% by the end of the semester.

Recording lectures has **no observable effect** on attendance.

I'm not happy with these attendance figures. But video recording makes no difference.

Students **do** watch the videos. They report significant benefit for catching up, revision, or if for any reason they miss a lecture.

One nice quote: "I can rewind and pause the recorded Jamie".

Video recording is a tool: it makes the good students better — and the poor students (relatively) worse.

Key point

Recording lectures must be **easy**.

If it's fiddly and/or time-consuming then it won't happen.

I have a good workflow that's integrated into a broader CMS (content management system) that I developed for my teaching webpage.

I really enjoy using it.

Key point

Seminars and visiting talks should be recorded in this department as a matter of course. We're stupid not to do this.

I suggest MACS acquire a video camera, SD card, and tripod — perhaps like the one I've got. Make it available for:

- ▶ Seminars.
- ▶ Lectures.

I also suggest we **buy** a MACS Vimeo account. It's not expensive.

This would take pain out of steps 1 (online storage), 11 (copy), 12 (compress), and 13 (upload).

Do students complain?

Yes! Sometimes, students complain about the quality or availability of the recording.

I'm very forthright: I say "I don't want the video recording to be too good."

They seem to accept that.

Will we do ourselves out of a job?

No!

People still congregate in live concerts and cinemas, even though acoustically and visually better datastreams are available online (often for free, if you use BitTorrent). People still congregate in exercise classes or public parks, even though physically we can exercise in our living rooms.

We're the rock stars. The students are our adoring fans.

(We may still do ourselves out of a job. But it won't be the act of recording lectures that causes it.)

Benefits of recording lectures

1. Students who couldn't make it, can catch up.
2. Every so often, some dedicated student may be incapacitated for a few weeks. This student may approach you for help to catch up lost ground.

You want to help. You took this job because you care about educating people! But how will you find the time? If you recorded your lectures this problem goes away: "Watch the lectures online".

It only takes **one** such student a year, for this whole project to pay for itself.

3. Students use videos for revision.
4. **It's good feedback for the lecturer.**

Five minutes after your lecture **you** can be reviewing footage to see what works and what doesn't (and how crap you are, and how you can do it better).

Am I good at this?

In a sense, yes. I have found a solution that works for me.

In another sense, no. I'm an amateur operation.

I occasionally come across very professional productions online.
There's some amazing stuff going on.

But the basic operational minimum is inexpensive and quite easily accessible, and technology is improving rapidly.

The perfect camera

Small, light, inexpensive.

Minimum three hour total recording capability. No limit on length of individual segments.

Records compressed video suitable for uploading directly to the web.

Has zoom, wideangle lens, and records 1080p.

Has directional mic.

Has high dynamic range (and preferably an HDR option).

Has auto-pan feature (meaning that the camera can choose which part of the sensor to draw video from, and will use this to follow you around).