

Best Practice Guide for Online Lectures Using the Standard LMU Tools

Heinrich Hussmann, LMU

Version: 3/22/2020 11:13:00 PM

This text summarizes my experiences from producing digital lectures, which are distributed through the standard LMU tools available. It is not meant as a replacement for the official documentation, but as a sharing of personal experiences and best practices.

Scenario

I am assuming here the most basic case: I want to produce a traditional lecture which is made available for students to watch and download. This is not about live streaming (which is more adequate for tutorials and other interactive sessions). I am focusing on LMUcast here. I also cover the integration into the Moodle Learning Management System (Zentrale Lernplattform der LMU).

From my experience, recording local video of the lecturer (i.e. his/her face) is nice to have but not important. The most important thing is to have visual material (in my case presentations in PowerPoint or Keynote) accompanied with the synchronized audio recording of the lecturer. This can be adapted to scribbling tools for hand-writing.

Preparations

We need of course a laptop or PC to run the presentation on. One may use the built-in microphone of the computer, but it is much better to have a decent external microphone. I am using a device like this:



The picture shows an external USB microphone with an adjustable stand and a pop protector. This setup is available in online shops for around €80. But simpler hardware works as well.

If you want to record a video of your face as well, an external Webcam may also come handy, to decouple the viewpoint of the camera from the location of your computer. If you really want to go this way, you may also want to think about an appropriate lighting solution (like a simple ring light with a stand). But again, this is not necessary at all, the contents of the course are much more important.

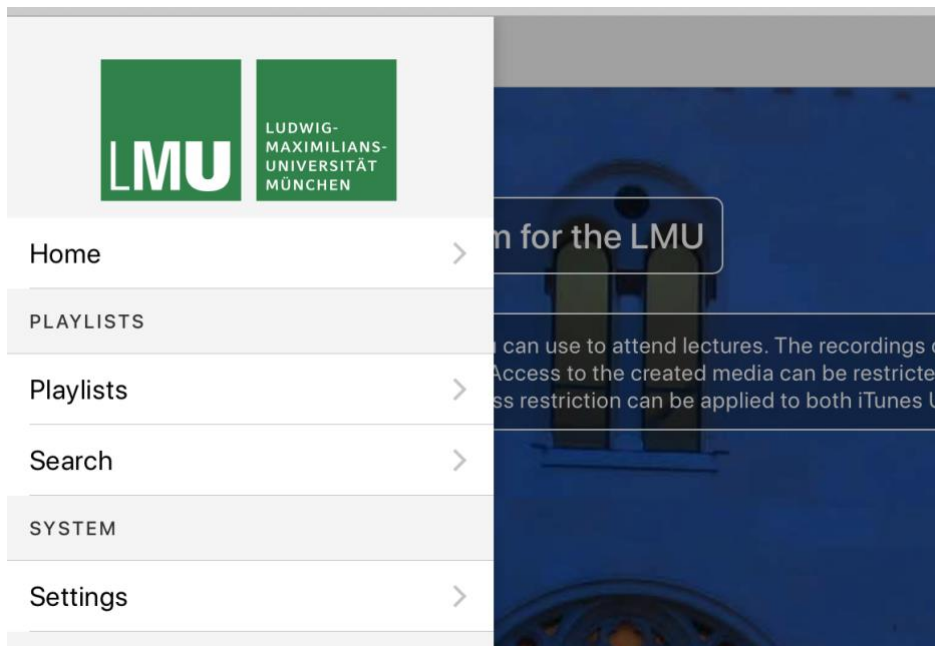
I found it helpful to have an external display connected to my presenter machine, because I then can easily use the presenter mode in PowerPoint/Keynote and it feels a bit more like being in the lecture hall. But this also is optional.

I use LMUcast, the video distribution solution of the LMU eUniversity. To start using this service, one has to log on at the following address:

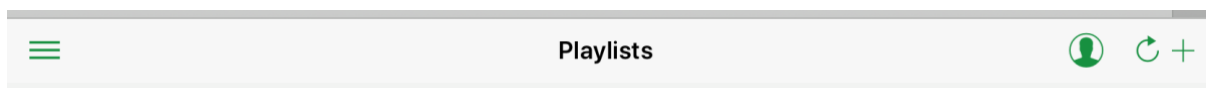
<https://cast.itunes.uni-muenchen.de/>

The credentials used there are the standard LMU Campus credentials.

For each course, we have to create a “playlist” in LMUcast. To do so, go to the menu (left upper corner, Hamburger menu icon) and select “Playlists”.



Then, find the “+” sign in the upper right corner (this is not very user-friendly, I know), and click, give a name to the playlist (your course name).



Recording

The main idea is to give the presentation as one would do in front of the students and to create a recording of what is going on. Presentation programs have built-in functions for that, but since I am often doing some demonstrations of programs, tools and online resources, I prefer to simply do a screen recording.

When using screen recording, please take great care that no confidential or personal information is visible! This sounds easier than it is; I actually created a separate user account for presentations to be sure.

For screen recording, there are several options:

- LMUcast recorder, available for download on the LMUcast site mentioned above.
- Commercial screen recording software. I have grown accustomed to use TechSmith Camtasia, an educational license for which is below €200 (Win/Mac). This is what I am using.

- Open Source software. I heard that OBS Recorder (<https://obsproject.com/>, Win/Mac/Linux) is a good choice. I do not have personal experience with this system, but it is massively used for life streaming in the games community, so it is probably a good alternative.

Please be careful in adjusting the settings of the recording, in particular which sources (cameras, screens, windows, microphones) are used. I strongly recommend to do a brief test recording before starting a lengthy lecture.

During recording, I enjoy the possibility to pause, or to re-record some parts which were not going well.

Editing

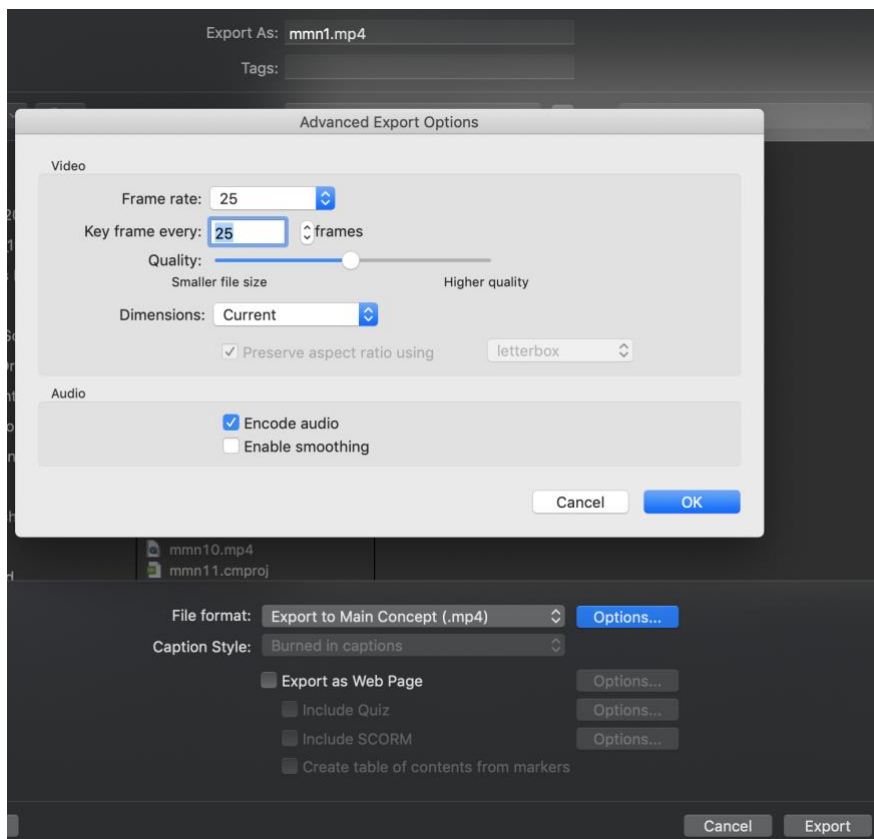
Depending on the software used for recording, there are possibilities to edit the recorded video. You may want to cut out parts, e.g. in the beginning and the end, or add some annotations, Web links etc. Usually, I do not find the time to do a lot of sophisticated changes here.

Exporting

Depending on the software used, this step may look different. The LMUcast recorder has some integration with LMUcast, of course. Since I am using screen recording software (Camtasia), I export the recording to a local file on my drive.

There are many options which can be customized in such an export, which have an influence on the file size. For instance, for recording a slide presentation, a low frame rate (I am using 15 fps) may be sufficient, and you can choose the resolution of your video.

Here is a screenshot how the export dialogue from Camtasia looks like on a Mac. It looks of course different with other software.



The export may take some time (depending on the hardware and software, several minutes are to be expected). The result is a local mp4 file.

But, as mentioned, this step may look quite different depending on the software choice for recording.

Loading into LMUcast


Start LMUcast in a browser window. Log in, go to your own playlist. In your playlist, click onto Clips.



In the Clips view, again look for the “+” sign in the upper right corner and click it. You will be asked for the file name to be “stashed” (strange wording, I know).

Get more options:

Submission creation

File to stash:

Keep the file as raw.

Select your local mp4 file and let the system do its work. After some time, you will get an email that the file has been imported into the system. You have to wait until then. Do not wait in front of the browser, this would be wasting your time.

Publishing in LMUcast

Once your video has been imported, look at the playlist again. Your video will appear as a little tile (in fact, the image in the top part will be different, just showing a generic LMU image):




11 Multimedia Conferencing ...

11.1 Multimedia Conferencing:
Service Definition and Equipment

11.2 Application Examples

11.3 Typology of Multi-Point Conferences

Literature:
James R. Wilcox: Videoconferencing, the whole picture, 3rd ed,
CMP Media 2000
John Rhodes: Videoconferencing for the Real World,



11./12. Multimedia Conferencing & Signalling Protocols

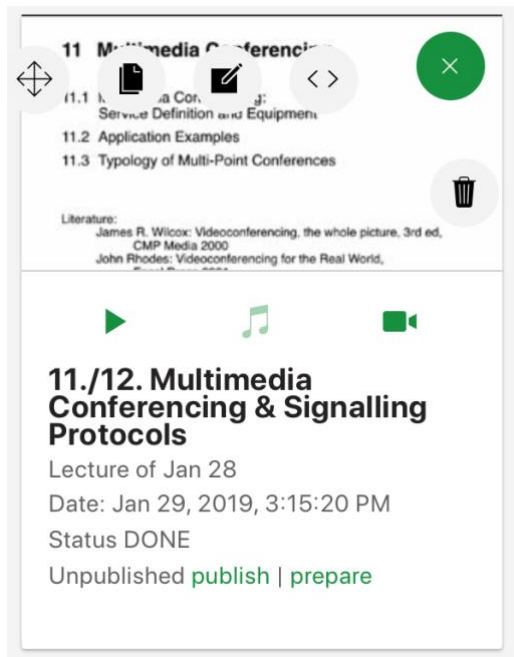
Lecture of Jan 28

Date: Jan 29, 2019, 3:15:20 PM

Status DONE

Unpublished [publish](#) | [prepare](#)

If you click on the three dots in the upper right corner of the tile, you will get more options:

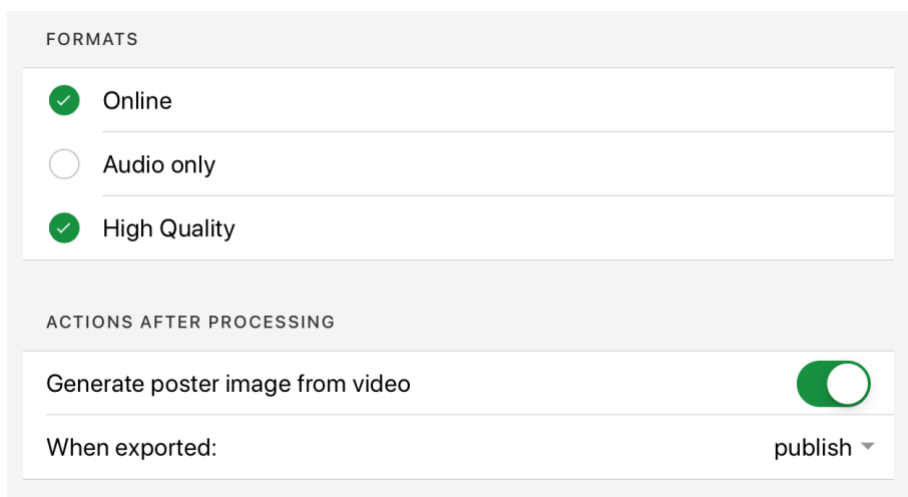


The most important icon here is the Edit option (third from the left). If you click it, you can set a lot of properties in a dialogue window. I usually do the following adjustments, but you may want to do it differently:

- I edit title, subtitle, and presenter to the texts I would like to be shown
- On the “Intro and Outro” tab, I delete the intro video (if you do not do this, the final video will start with a somehow flashy video telling the viewer that this is a “podcast from LMU”

After these adjustments being saved (again upper right corner), you will be returned to the tile of your recording, and then you can click “publish”.



You will be asked a few more questions, and here is my standard way to deal with them:



There are two options for video quality, “online” being the low quality (again a confusing way of wording). I usually select “Generate poster image”, which means that an image from my video will replace the standard LMU image in the tile (as seen above).

After having adjusted the settings, again click the button in the right upper corner and let the system do its work. You will get an email when it is finished.

Playlists and Clips as Web Links

The playlist of your clips is accessible as a Web link. To get the Web link for this, go to your playlist, click the three dots icon () and then the links icon (). You will be presented with links you can use to refer to your playlist.

Here are a few links to playlists of my own:

<https://cast.itunes.uni-muenchen.de/vod/playlists/fDsxX8bvs0.html>

<https://cast.itunes.uni-muenchen.de/vod/playlists/zMzcpBrvmD.html>

From the Web players, students have the possibility to stream the video or to download the video file.

Individual links can be referred from the Web as well (same procedure as above, but on the level of clips in a playlist). But here you will get only the HTML code to include the link into a Web page.

Integration into LMU Moodle

I found it very helpful in recent years to create a workspace in Moodle for all my courses. This is worth to be mentioned, since I used to be an opponent of Moodle for many years, due to the limited usability of the system. I still think Moodle is far from offering a modern interface, but its functionality makes it the obvious choice these days.

To create a Moodle course on <https://moodle.lmu.de>, please contact the local person which has been educated in Moodle administration. Avoid to put load on the central LMU Moodle administrators. If you are in the Informatik department, please contact me personally.


It goes beyond the scope of this document to describe the possibilities of the Moodle Learning Management System (LMS). I focus instead on a few tricks needed to integrate your LMUcast videos into your Moodle course.

Once you have been assigned in “trainer” role to your Moodle course, the two most important secret tricks are as follows:

- Please note that Moodle has two states (like many multimedia authoring systems since the 80s), an authoring state and a viewing state. To change something, you have to enable authoring mode with the little “cog wheel” icon in the upper right corner. German label is “Bearbeiten einschalten”.
- Please note that for including videos you have to find the global “Filter” settings of your course and have to set “Generico” to the value of “On”. Sorry for this magic, it is of course against all usability principles.

Under these precautions, you can use the standard “+” function of Moodle (Create new material or Activity), and then please select the “Page”/“Textseite” option.

In the authoring dialogue, you can insert text and style it. Please note the icon which looks like a “G” in a box. If you click it, you are asked whether you want to integrate a video from LMUcast. It will ask you for an id, which you can get

from the LMUcast Web page through the links icon for an individual clip (). This will lead to a nice embedding of your video into the course, including choices for quality and streaming vs download.

Further Thoughts

This document is intended as a simple knowledge transfer tool to pass on information I have collected over quite some time. I am aware of the fact that this is not an ideal state, and the process to publish materials is quite complex. But the results are good, and students like to be presented with their materials in this style, as far as I can tell.

Using Moodle in combination with LMUcast makes it also quite easy to make use of the tremendous possibilities of the Moodle platform, just to mention a few:

- Online forum discussions (asynchronous)
- Chat rooms (synchronous)
- Jointly edited documents (Etherpad)

It will be a challenge to use these tools in an ideal way for online teaching, and the biggest problems probably will be in system performance, if a lot of users decide to switch to the platform (as it has happened with the Bavarian Moodle-based “mebis” platform for schools during the Corona/SARS-2 crisis).

Anyway, the state of tools is quite promising. Thanks to the colleagues from eUniversity@LMU to provide the infrastructure!