Embedding the EPFLGraph Video Player into Moodle

Help your students revise the course by quickly navigating your lectures and searching by concepts.

Teaching Support Centre (CAPE) / Center for Digital Education (CEDE)

Feedback and Support: flexible-teaching@epfl.ch

More information: https://go.epfl.ch/flexible-teaching

How are videos indexed by EPFLGraph ?

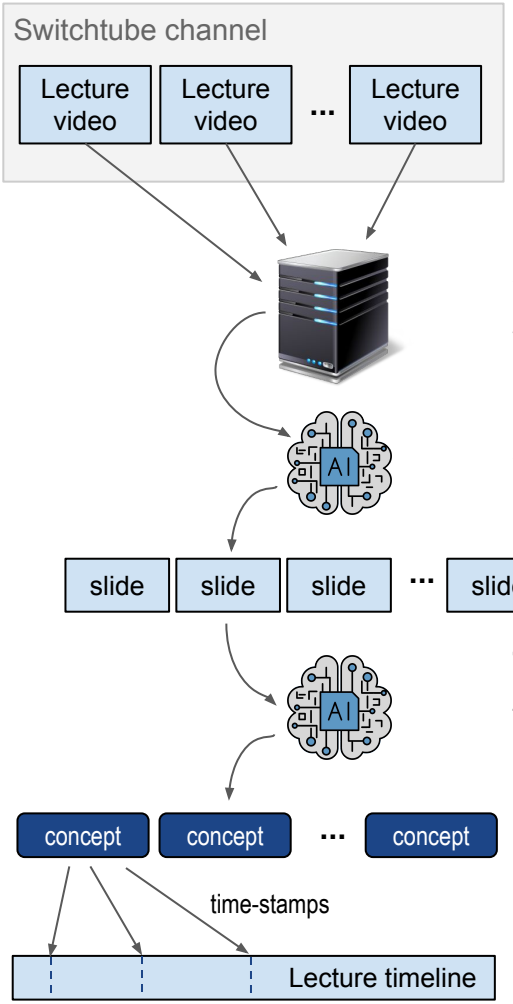
The EPFL Graph is a search engine that allows students to search for **courses**, **concepts**, and **learning resources**, and discover how they interconnect with each other.

With the advent of flexible teaching, we have added **video lectures** to the list of resources students can access and explore.

By connecting video lectures to our knowledge base—which includes a complete database of scientific concepts taught at EPFL—students can now **search for specific concepts directly on the lecture timeline**.

Concepts are automatically detected and time-stamped though the use of Computer Vision and Language Processing algorithms [see diagram on the right].

You can embed the EPFL Graph's video player directly in your Moodle course page.



1. Teachers post video lectures on tube.switch.ch

2. EPFLGraph's data pipeline continuously **scans for new videos** and downloads them

3. A computer vision algorithm **splits videos into slides** (or snapshots)

4. A language processing algorithm **extracts concepts** from the text in the slides
👍including hand-written text in both English and French

5. Students can then search for videos and the exact time-stamps that address the concept they're looking for.

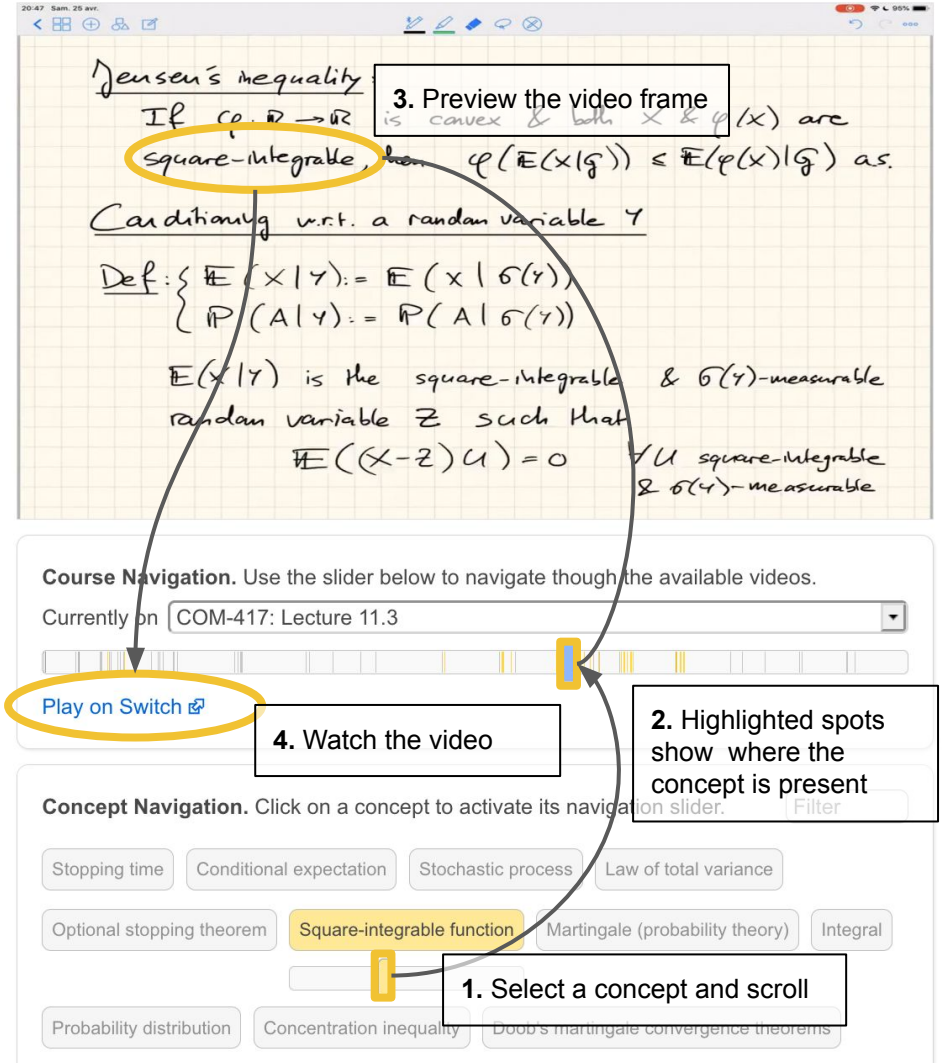
EPFL

What is the EPFLGraph Video Player ?

Try it here: https://graphsearch.epfl.ch/course/COM-417/

- The video player displays a timeline with all the lectures collated one after the other. Vertical bars show the transitions between videos.
- Below the player there is the list of concepts that appear in the video (concepts are detected automatically through character recognition)

1. Clicking on a concept (e.g. Square-integrable function) shows a scrollbar which allows to jump directly to the places where the concept it present
2. The timeline highlights the spots in the videos where the concept was detected.
3. The preview shows the frame (or slide) that corresponds to the position in the timeline
4. Clicking on “Play on Switch” launches the video on SWITCHtube at the corresponding frame.



Add the video player to your Moodle course
Step 1: Get the URL of your course on EPFL Graph

1. Go to: https://graphsearch.epfl.ch/

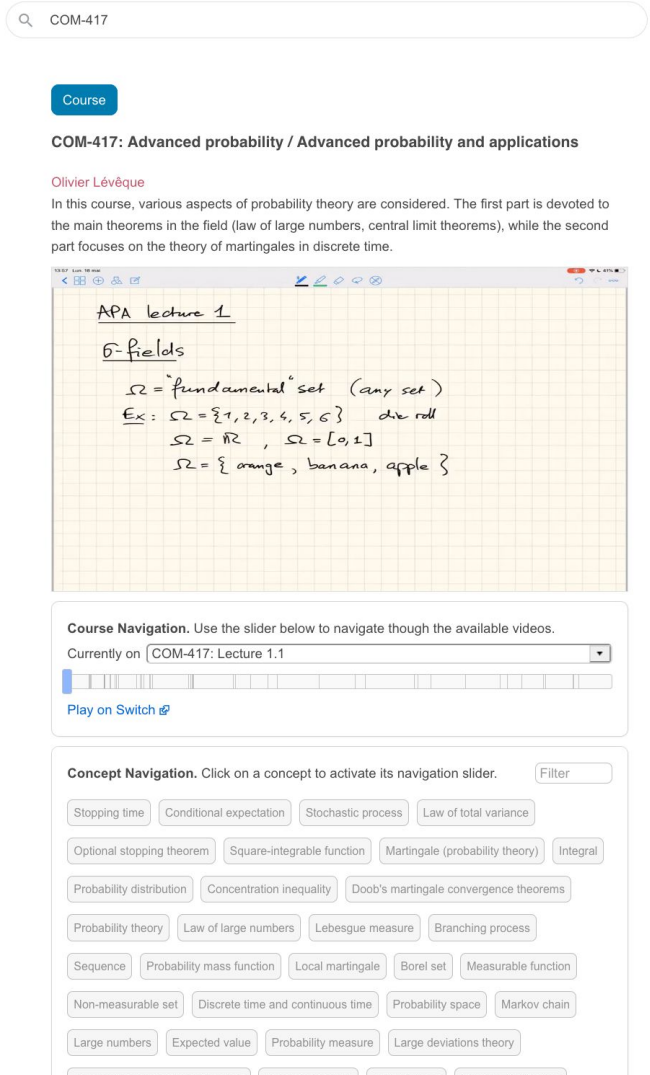
2. Search for your course
   e.g. “**COM-417: Advanced probability**”

3. Copy the URL
   e.g. https://graphsearch.epfl.ch/course/COM-417/

4. Modify the URL by adding “/embed/lectures-of/”
   https://graphsearch.epfl.ch**/embed/lectures-of/**course/COM-417/

If you don’t find your course, make sure to:

- Use a SWITCHtube channel to publish your videos. If you don’t know how, have a look at this guide.
- Include the course code in the name of your SWITCHtube channel, e.g. “COM-417”
- Set the privacy setting of your SWITCHtube channel to “open” or “EPFL only” but *not* to “private”.
- Drop us a note (graph-support@epfl.ch) with the link to your SWITCHtube channel so we can launch the indexing.



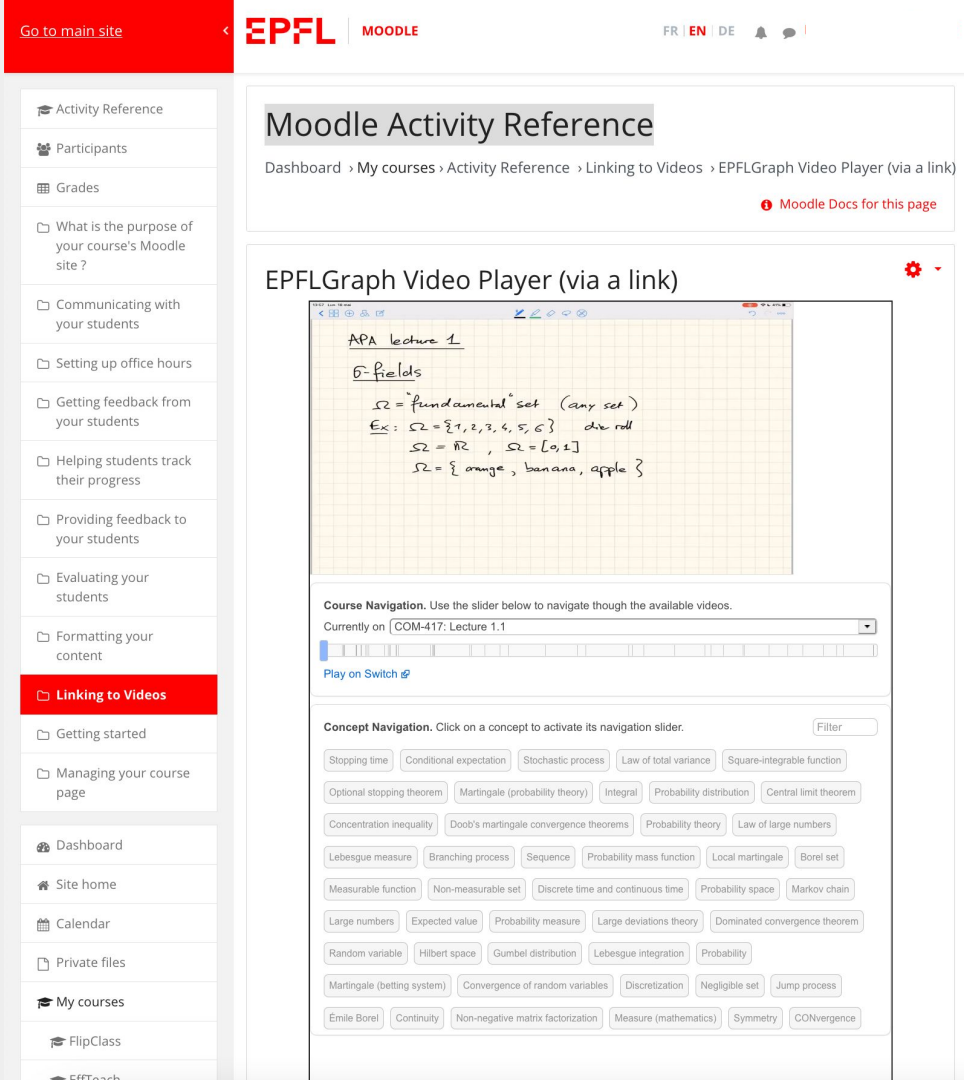
Add the video player to your Moodle course
Step 2: Add the link to your Moodle page

1. Go to your course on: https://moodle.epfl.ch/

2. Turn editing on
3. Click on “Add an activity or resource”
4. Select “URL”

5. Choose a name, e.g. “EPFLGraph video player”.
6. Paste the modified URL from the previous step under "External URL" (https://graphsearch.epfl.ch/embed/lectures-of/course/COM-417/)
7. Under “Appearance” select "Embed".
8. Click “Save and display”.

The picture on the right shows how the link is displayed in the Moodle Activity Reference course.



Alternative: Embed the player into any webpage (or Moodle “Page” or “Label” resource).

1. With the modified URL from the previous step
   https://graphsearch.epfl.ch/**embed/lectures-of/**course/COM-417/

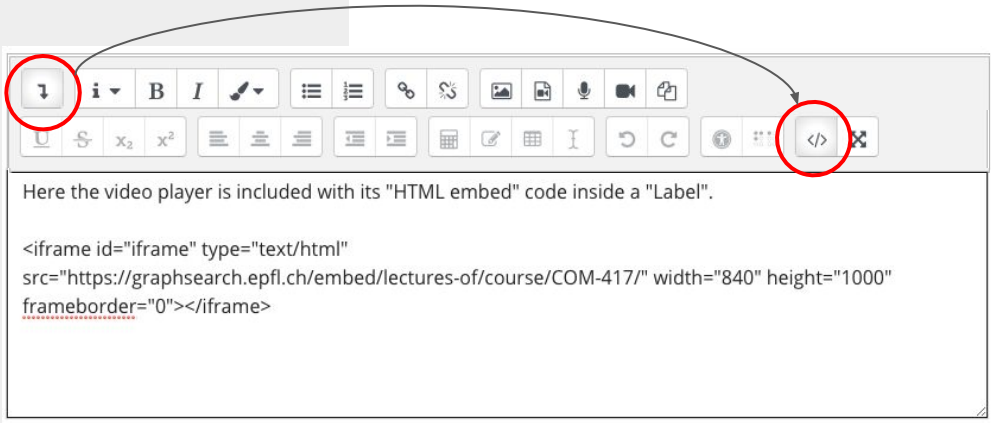
2. Use the following HTML code to embed the player anywhere:

```
<iframe id="iframe" type="text/html"
src="https://graphsearch.epfl.ch/embed/lectures-of/course/COM-417/"
width="840" height="1000" frameborder="0"></iframe>
```

3. For example in a “Label” or a “Page” in Moodle, or in any content management system that allows you to edit HTML code.

NB: Wordpress support to embed into EPFL’s website is part of our future plans …

Adding HTML code to a Moodle Page or Label ...



EPFLGraph is in development, feedback welcome !

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