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 ?

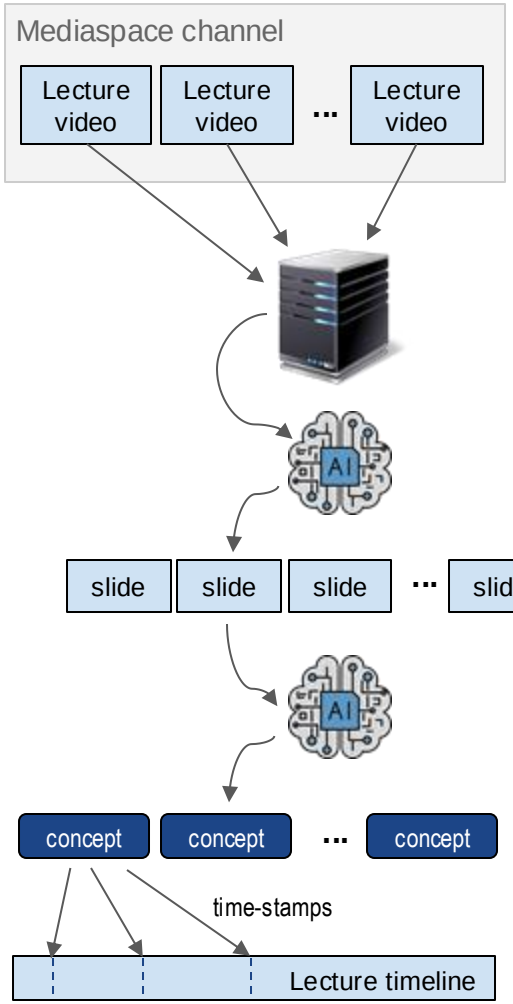
The EPFL Graph is a search engine that allows students to search for **courses**, **concepts**, and **learning resources**, and discover how they interconnect with each other.

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 mediaspace.epfl.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 ?

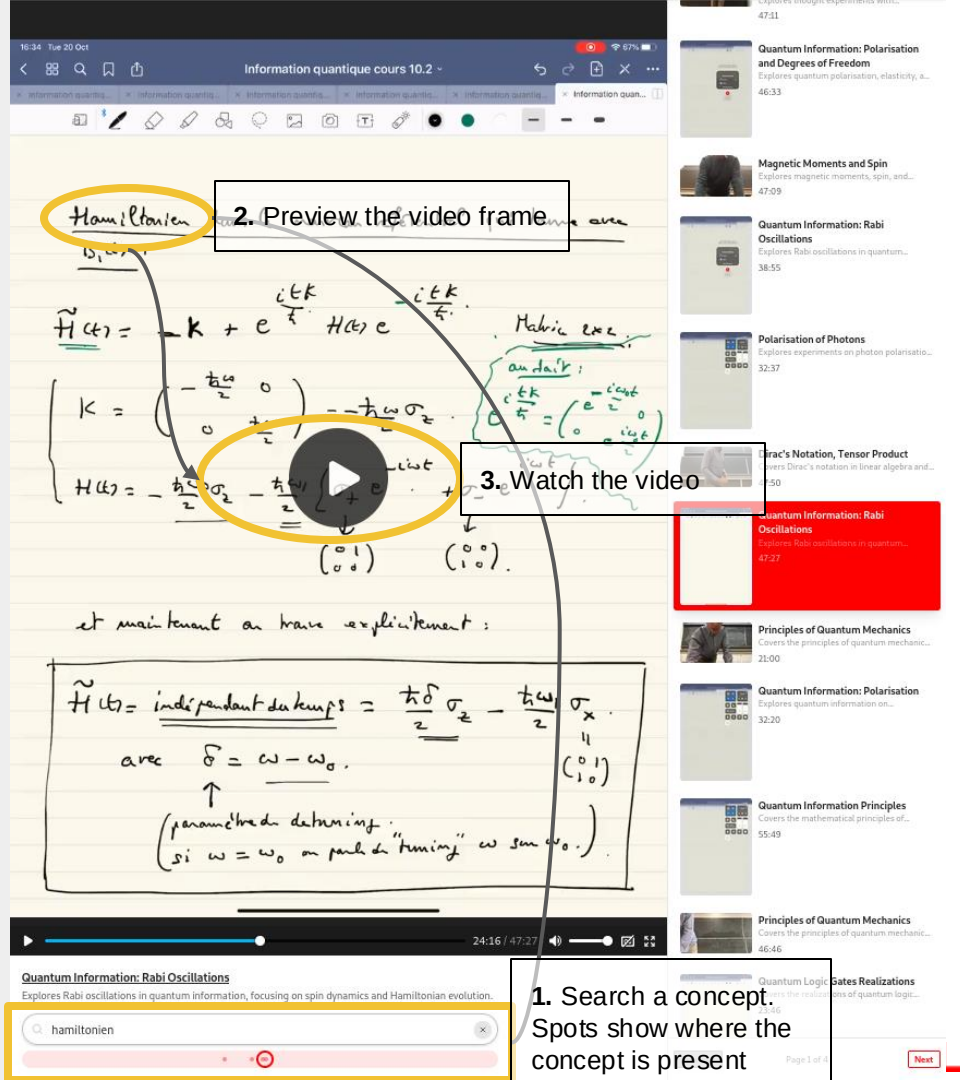
Try it here:
https://graphsearch.epfl.ch/en/embed/course/COM-309

- The video player displays a playlist with all the lectures available on the right.
- Below the player there is a search bar (concepts are detected automatically through character recognition).

1. Searching a keyword shows spots on the slider which allows to jump directly to the places where the concept was detected.

2. The preview shows the frame (or slide) that corresponds to the position in the timeline.

3. Clicking on the play button launches the video from the corresponding frame.



Option 1: Getting the embed link for all videos of a course

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

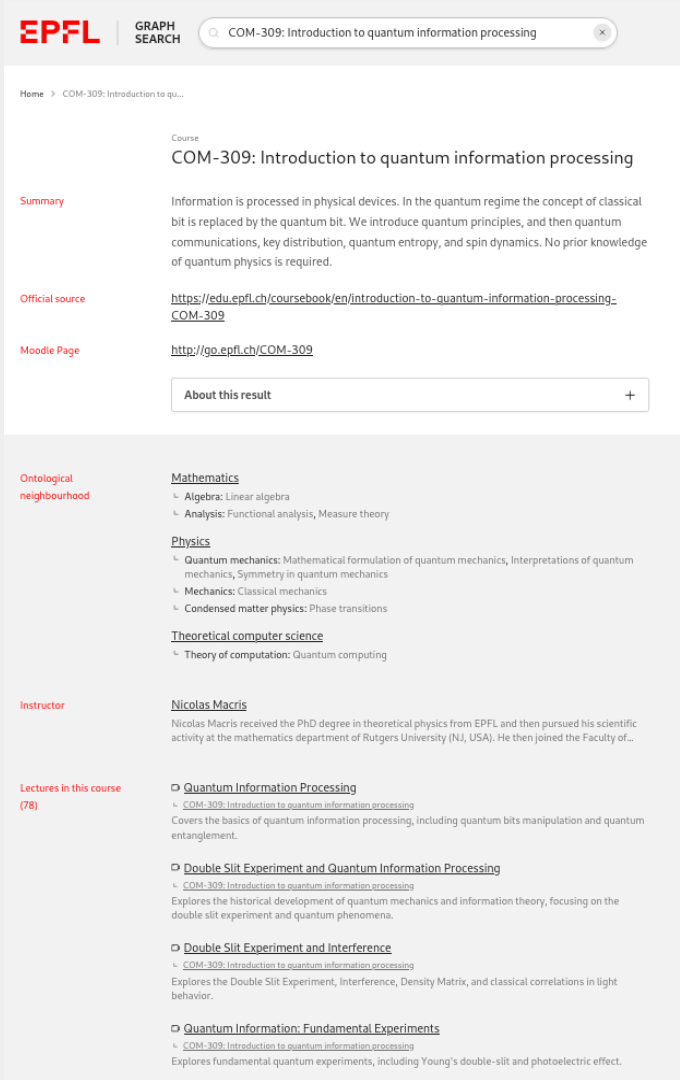
2. Search for your course
   e.g. "**COM-309: Introduction to quantum information processing**"

3. Copy the URL
   e.g. https://graphsearch.epfl.ch/en/course/COM-309

4. Modify the URL by adding "/embed"
   https://graphsearch.epfl.ch/en/**embed**/course/COM-309

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

- Use a Mediaspace channel to publish your videos. If you don't know how, have a look here.
- Include the course code in the name of your Mediaspace channel, e.g. "COM-309"
- Drop us a note (graph-support@epfl.ch) with the link to your Mediaspace channel so we can launch the indexing.

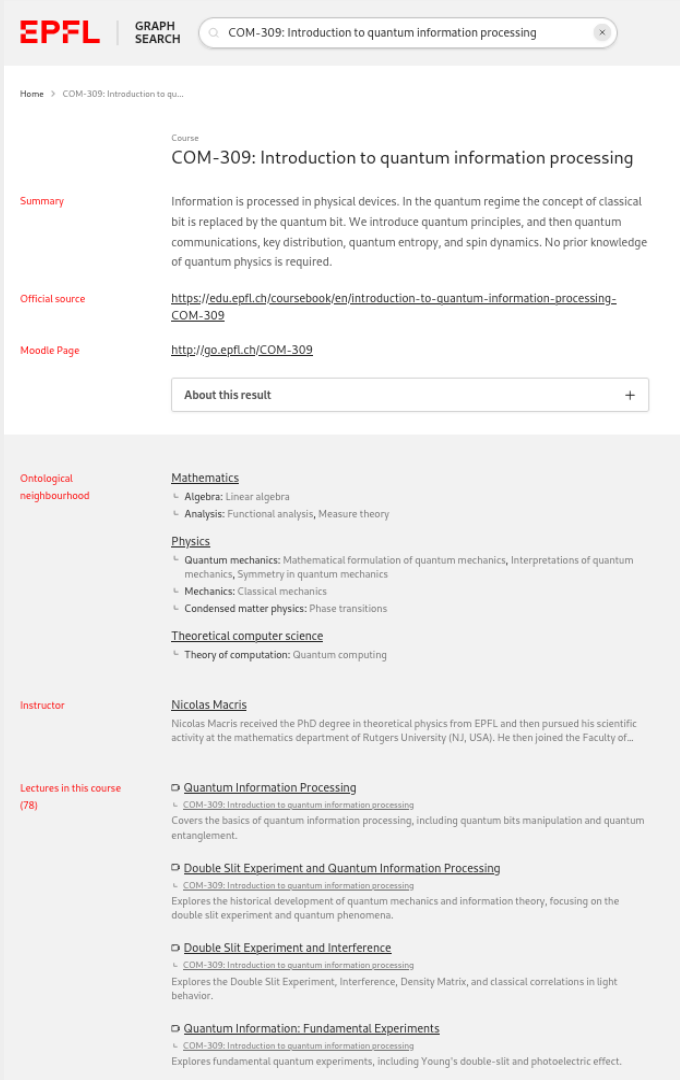


Option 2: Getting the embed link for specific videos

1. Go to: https://mediaspace.epfl.ch/
2. Search for your video and open it.
3. Get the video ID. It is in the URL shown in the browser, it starts with "0_" and is located after the title, between 2 "/".
   Example:

   `https://mediaspace.epfl.ch/media/10%2C+Lecture+10A+Text+Models+1/0_dx8p4wju/29696`
4. Repeat 2. and 3. for each video you want to include.
5. The embed URL is "https://graphsearch.epfl.ch/en/embed/lecture/" followed by a comma separated list of video IDs you want to include such as:

   https://graphsearch.epfl.ch/en/embed/lecture/0_dx8p4wju,0_o3oeofek



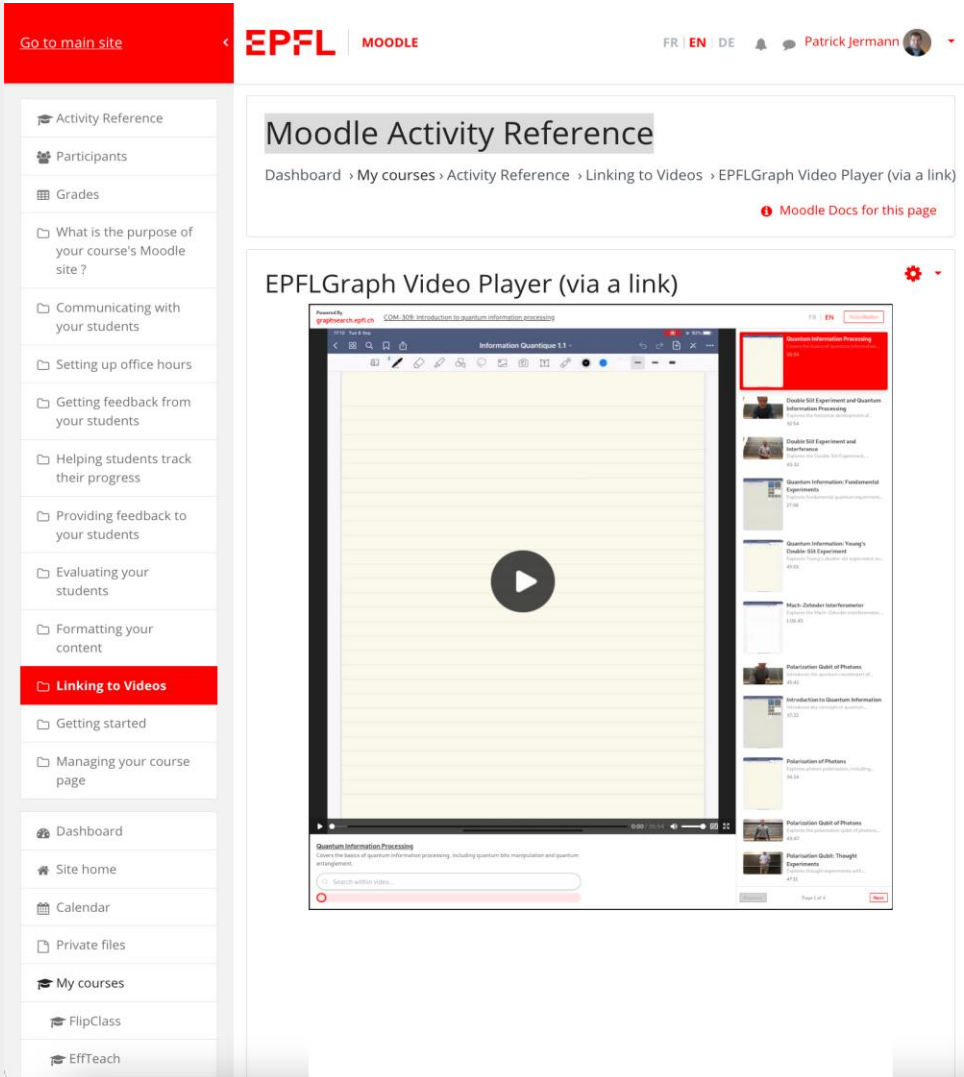
Add the video player to your Moodle course

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

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

1. Choose a name, e.g. “EPFLGraph video player”.
2. Paste the embed URL from the previous step under "External URL" (https://graphsearch.epfl.ch/en/**embed**/course/COM-309)
3. Under “Appearance” select "Embed".
4. 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).

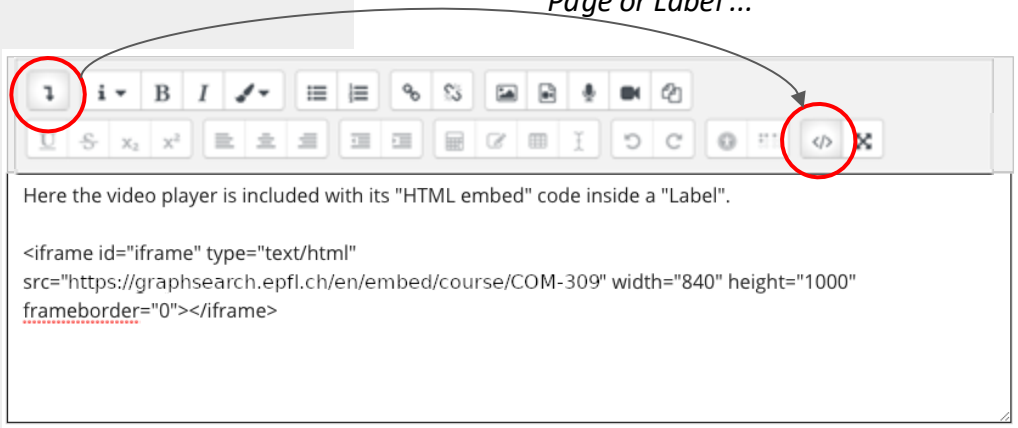
1. With the embed URL from the previous step
   https://graphsearch.epfl.ch/en/**embed**/course/COM-309

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

```
<iframe id="iframe" type="text/html"
src="https://graphsearch.epfl.ch/en/embed/course/COM-309" 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.

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



EPFLGraph is in development, feedback welcome !

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