



## **Nudgis - LMS integration guide**

This documentation describes ways to integrate UbiCast-generated content into an LMS, both generic or by using our open-source building block (Moodle only). Note that Moodle will be used as an example throughout this documentation, please refer to your LMS documentation for specifics.

Cette documentation est également disponible en [français](#).

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# Prerequisites

In order to make possible the integration of channels and media in your [LMS \(Learning Management System\)](#), the Nudgis and the LMS must be in the same domain, because otherwise cookies (considered as Third-party cookies) will be rejected by most browsers, breaking authentication in the process.

## **Correct example:**

Moodle: my-moodle.example.com

Nudgis: my-nudgis.example.com

## **Incorrect example:**

Moodle: my.example.com

Nudgis: my.nudgis.com

For LTI version 1.3, the Nudgis servers and the LMS servers must be able to contact each other using their HTTPS URL.

# 1. Nudgis LTI overview

## 1.1. About LTI

LTI is a protocol that allows LMS users to integrate content provided by third-party web-based tools simply and in a secure manner.

LTI works with dedicated links to access to the content. Each embeddable content is called a "tool" for LTI.

Nudgis handles the following versions of LTI:

- LTI 1.0 and LTI 1.1: The authentication protocol is based on OAuth1 and all communications between the LMS and Nudgis transit through the user browser. These versions are deprecated and should not be used anymore, unless your LMS only supports it.
- LTI 1.3: The authentication protocol is based on OAuth2 and the communications between the LMS and Nudgis transit through the user browser and **directly between the servers** (meaning that the LMS and the Nudgis servers must be able to communicate in both ways using HTTPS). This version is recommended for LTI integration.

**NB: It is not possible to use LTI 1.0/1.1 and LTI 1.3 at the same time with Nudgis because the LTI attributes are not the same between versions.**

LTI urls look like this one:

<https://your.nudgis/lti/v125395dfecaa01pn1ue/>

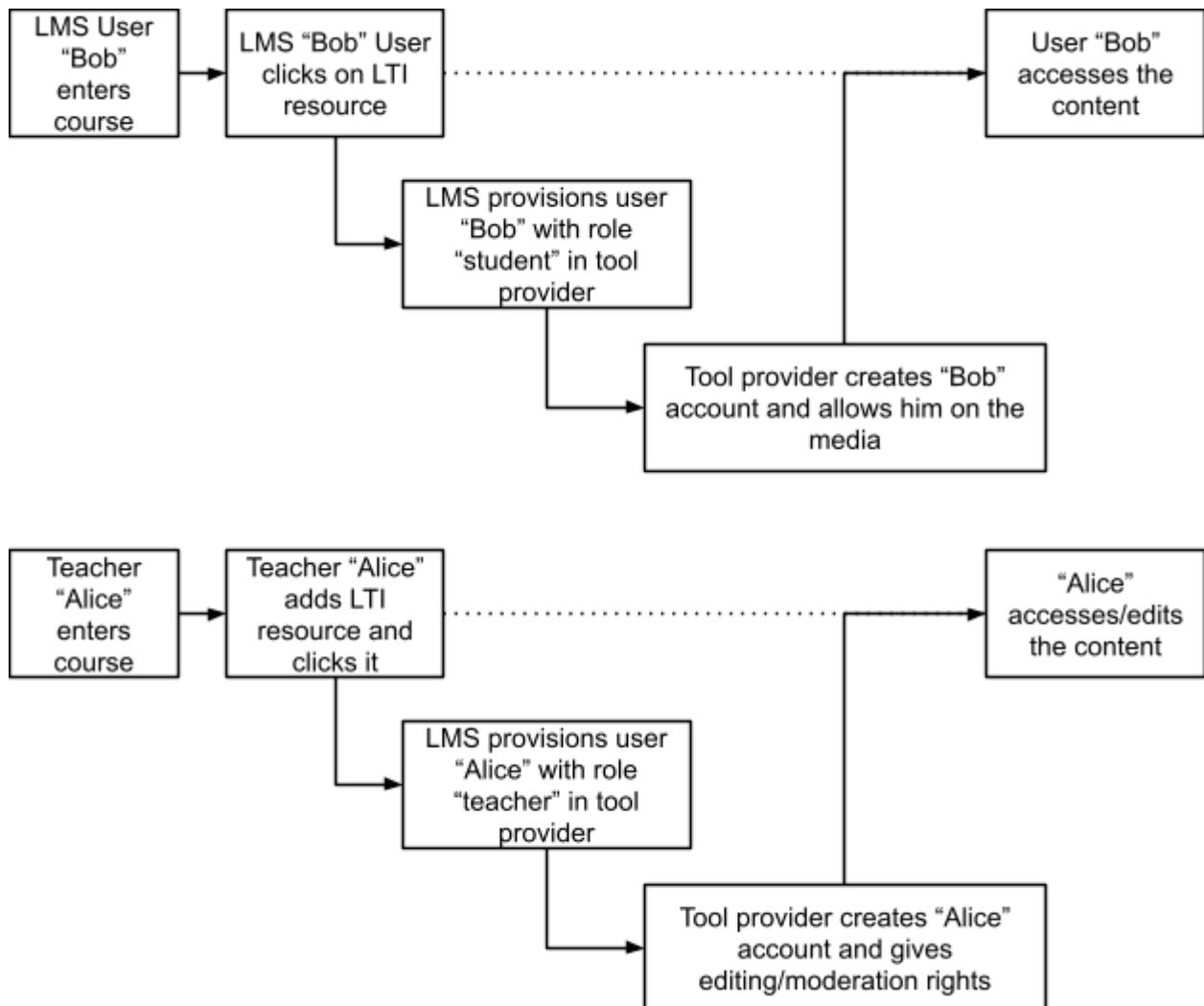
The most interesting part of LTI is that it supports the notion of user roles; this means that the LTI tool provider is aware of the rights that the user should be given when he accesses content.

To sum up, the security is based on the fact that if the user can access the content inside the LMS (e.g. student is enrolled to class “A”), then any content inside this class “A” should be made available to him.

A non comprehensive list of LTI tool providers and consumers is available here:

<http://developers.imsglobal.org/catalog.html>

How the security model works:



## 1.2. Nudgis initial setup

Nudgis includes an LTI integration since version 4.6, as part of the supported authentication backends.

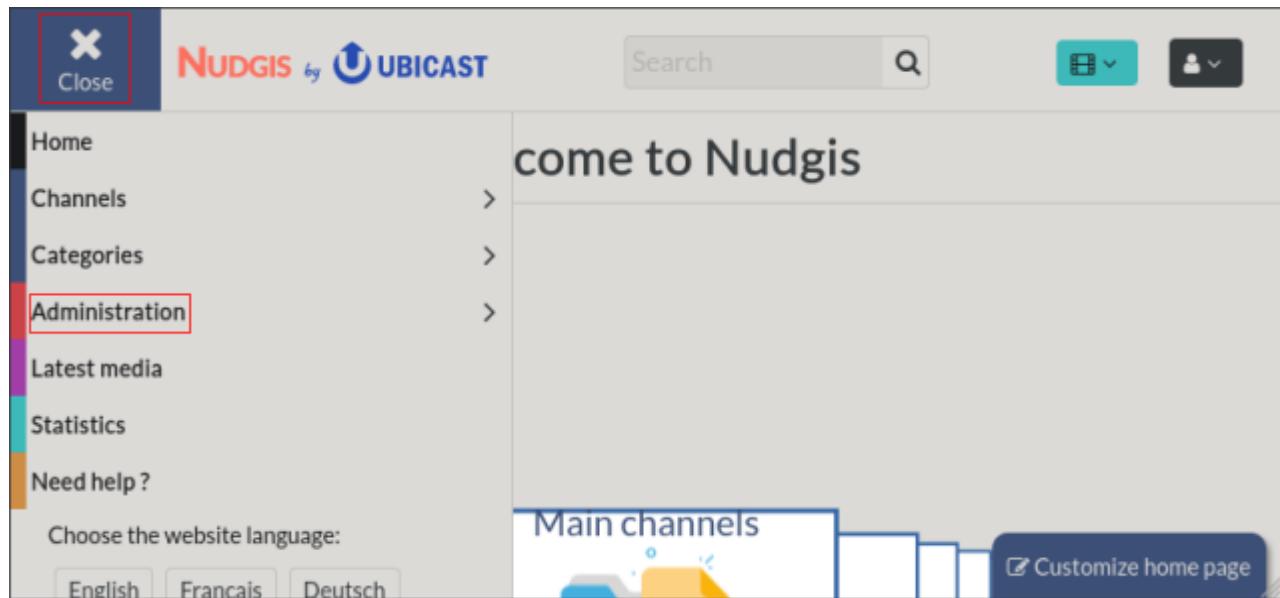
The LTI protocol version 1.3 is supported since Nudgis 11.2.0. Previous versions of LTI are deprecated.

To setup LTI, it is first necessary to (see help below for each step):

- 1) Enable LTI inside Nudgis.
- 2) Register the LMS (either with the dynamic registration feature or by filling the LMS information manually, see help below for both methods).
- 3) Define roles permissions.

### 1) Enable LTI inside Nudgis

To access LTI settings, go to the Administration menu:



Then enter authentication settings:

The screenshot shows the Nudgis administration dashboard. At the top, there's a header with the Nudgis logo, a search bar, and an 'Add content' button. Below the header, the word 'Administration' is centered. Under 'Information', there are sections for Content (Channels: 91, Lives: 54, VOD: 270 (20 hours), Photos groups: 3 (3 photos)), Storage (Total size: 126.3 Go, Used: 55.0 Go, Available: 71.3 Go (56%)), and Usage (Users currently playing a video: 0 [peak: 10, limit: none, media: 0]). Below 'Information' is a 'Social interactions' section with 'Manage activities' and 'Moderate annotations' buttons. Under 'Supervision', there are buttons for 'Tasks status', 'Livestreams statuses', 'Manage keywords', and 'Orphan resources'. In the 'Authentication' section, there are two buttons: 'Users and groups management' and 'Authentication settings and services', with the second one highlighted by a red box.

Enable the LTI service:

The screenshot shows the 'Authentication services' page. At the top, there's a navigation bar with tabs: Settings, Local, LTI (which is highlighted with a blue box), CAS, Kerberos, LDAP, Social, Groups assignment, and a 'Users and groups management' button. Below the tabs, there's a 'Save changes' button. The main content area is titled 'LTI Main settings' and contains a 'Enable LTI' checkbox, which is checked and highlighted with a red box.

## **2) Register the LMS**

### **Using the dynamic registration:**

If your LMS handles the dynamic registration feature, the setup will be much easier.

To use this feature, you will have to copy and paste the dynamic registration URL into your LMS.

The URL can be found in Nudgis LTI settings page:

#### **Dynamic registration**

This section is applicable only to LTI 1.3.

Use this link to configure the service in the LMS automatically.

The LMS must support the dynamic registration feature of the LTI protocol. If it does, copy and paste the following link into the LMS.

Dynamic registration will not be available if LTI is disabled.

Dynamic registration link:

<https://dev.webtopia.fr/lti/adv/registration/>

**Or by filling the LMS information manually:**

Use this method only if your LMS does not support the dynamic registration feature.

LMS (Learning Management System) definitions

This section is applicable only to LTI 1.3.

▼ LMS: https:// - Fur3R6UUBt0MHb5

Delete after save:

\*Issuer: https://

\*Client identifier: Fur3R6UUBt0MHb5

\*Login endpoint: https:// /mod/lti/auth.php

\*Authorization endpoint: https:// /mod/lti/token.php

\*OAuth2 audience:

\*JWKS endpoint: https:// /mod/lti/certs.php

\*Deployment identifiers: 1

Key to use: Key "2022-13-12-1" ▾ Display public key

▶ Register a new LMS

Do not forget to click on the save button once all data is filled.

## **Attributes mapping**

Depending on your LMS, you may have to change the user attributes mapping. To get the user attributes sent by your LMS, you can use the test page (see section 1.3. for further information on the test page).

For most LMS and when using LTI 1.3, you shouldn't have to change the mapping because the default values are correct.

The default values are:

- Username: email
- Email: email
- First name: given\_name
- Last name: family\_name

### 3) Define roles permissions

The role permissions can then be defined finely (note that two default roles are provided: Learner and Instructor.)

The screenshot shows the 'Role definitions' interface for defining permissions. The 'Role' dropdown is set to 'Instructor'. The 'Active' checkbox is checked, and the 'Delete after saving' checkbox is unchecked. A button to 'Add an LTI role definition' is visible.

**Global permissions:**

Can create channels:	Untouched	Can create media:	Untouched
Can create polls:	Untouched	Can manage keywords:	Untouched
Can manage live streams:	Untouched	Can see all statistics:	Untouched
Can edit users:	Untouched	Can edit site settings:	Untouched
Can edit site skin:	Untouched	Can see recorders control panel link:	Untouched

**Editing permissions:**

A blue bar at the top of this section states: "Some tab permissions are not applicable to channel editing."

Publishing settings:	Yes	Advanced settings:	Yes	Appearance tab:	Yes
Trimming tab:	Yes	Slides tab:	Yes	Community tab:	No
Attachments tab:	Yes	Photos tab:	Yes	Widgets tab:	Yes
Resources tab:	Yes				

**Media permissions:**

Access:	Yes	Edit:	Yes	Delete:	Yes
See statistics:	Yes	Moderate:	Yes		

To help understanding which roles the LMS reports and debug the permissions, you may add the “Test page” link into the LMS, and click on it. This will let you introspect the role names defined by the LMS.

**Important:** In the version 11.1.1 and previous versions, the roles transmitted by the LMS were automatically prefixed with:

- "urn:lti:role:ims/lis/" for the roles not beginning with "urn:lti:" and not containing "ims/lis/".
- "urn:lti:" for the roles not beginning with "urn:lti:" and containing "ims/lis/".

## 1.3. LTI test page

The LTI test page allows you to check that the LTI service is correctly configured. It can also be used to show the data sent by the LMS to Nudgis.

To use the test page, it should be enabled in the LTI settings of Nudgis:

?

Enable test page:  Default value: No

The link to the test page is available in the LTI settings of Nudgis:

### Test page

Use this link to test your settings and see all data received and all permissions granted when using LTI.

The test page will not be available if LTI is disabled or if the test page is disabled.

Link to the test page:

<https://dev.webtopia.fr/lti/test/>

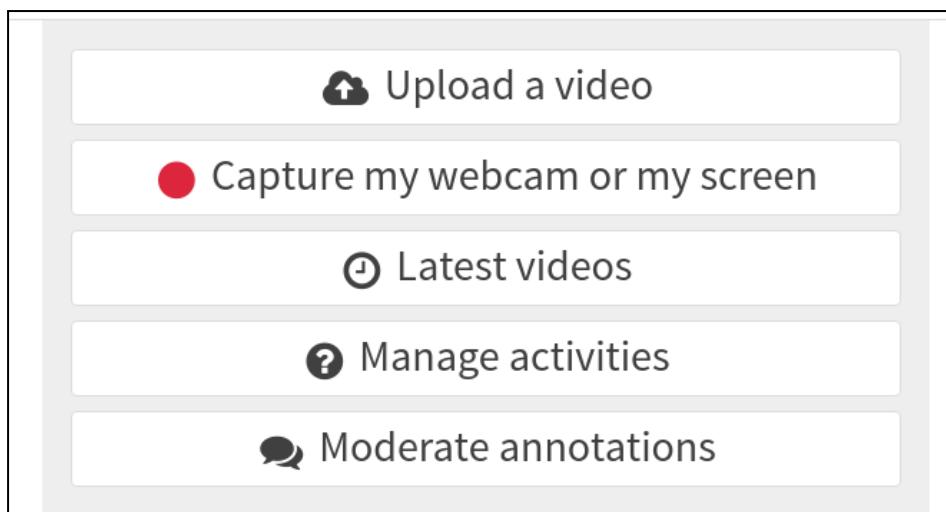
Add the test page url as an LTI link into the LMS, and click on it. It will then display the values transmitted over LTI for debugging.

## 1.4. The Media Manager

The page used in Nudgis for the LTI deep linking feature (content selection).

This page allows to access multiple features:

- Creation of a media by uploading a file.
- Creation of a video by recording the user desktop.
- Selection of an existing media.
- Management of activities (polls and questionnaires).
- Moderation of comments of all media the user can moderate.



The page is available at this URL: "/manager/". By default, only media for which the user is the speaker are shown. It is possible to add the "?all" argument to show all accessible media.

Documentation on the Deep Linking :

<https://www.imsglobal.org/spec/lti-dl/latest/>

[https://canvas.instructure.com/doc/api/file.content\\_item.html](https://canvas.instructure.com/doc/api/file.content_item.html)

The screenshot shows a Moodle-based LTI test page titled "Beta - LTI test page". The page displays the following information:

- Header: "ubicast-moodle" and a user profile icon.
- Breadcrumbs: Home > My courses > LTI tests > Tests > Beta - LTI test page
- Title: Beta - LTI test page
- Content:
  - JSON-like data:

```
        "lti:resource:resource_link:resource_link_version": 1.0,  
        "lti:resource:resource_link:resource_link_description": "",  
        "lti:resource:resource_link:resource_link_id": 26,  
        "lti:resource:resource_link:resource_link_title": "Beta - LTI test page",  
        "lti:resource:roles": "Instructor,urn:lti:sysrole:ims/lis/Administrator,urn:lti:instrole:ims/lis/Administrator",  
        "lti:tool:tool_consumer_info:product_family_code": "moodle",  
        "lti:tool:tool_consumer_info:version": "2016120500.03",  
        "lti:tool:tool_consumer_instance:description": "UbiCast Community portal",  
        "lti:tool:tool_consumer_instance:guid": "moodle.ubicast.net",  
        "lti:tool:tool_consumer_instance:name": "ubicast-moodle",  
        "lti:tool:user_id": 2
```
  - Permissions granted by your roles:**

Your roles are: Instructor, urn:lti:sysrole:ims/lis/Administrator, urn:lti:instrole:ims/lis/Administrator  
Can create channels : Untouched

## 1.5. Learning Analytics

Note: Since version 8.4.0, it is possible to send playback progress as a grade to the LMS, simply enable the option in the LTI settings page and in the LMS settings.

The screenshot shows a configuration interface for LTI authentication settings. It includes sections for 'Main settings' and 'Advanced settings'. Under 'Main settings', there are several configuration items:

- Enable LTI:**  Default value: No
- Parent access:**  Default value: No
- Automatically move media:**  Default value: No
- Top LTI channel:** LTI-test
- Unique context id:**  Default value: No
- Send playback progress as grade:**  Default value: No (This option is highlighted with a red border)
- Enable test page:**  Default value: No

## 1.6. Example workflow

1. Recording is triggered on a UbiCast Miris Box with the speaker\_email metadata provided.
2. When capture is stopped, recording is sent automatically to Nudgis.
3. Upon reception, when the media is ready, Nudgis sends out an email to the speaker containing the LTI link along with (potentially customer-specific) instructions.
4. After integrating the LTI link in the LMS, when the teacher clicks the link he is automatically recognized as being an editor and moderator.

## 2. LMS setup examples

### 2.1. Moodle

#### 2.1.1. Generic LTI integration

*Note: Our LTI 1.3 integration does not yet support student submissions (but it is planned). If you need student submissions, use our moodle plugins. [Some plugins](#) may provide this feature [until Moodle provides it natively](#).*

*Note 2: Moodle does not support self-signed certificates. Please ensure that the certificate for Nudgis seen by Moodle is valid.*

##### 2.1.1.1. Moodle configuration

First you have to declare the Nudgis server into Moodle as an LTI tool provider using the administration interface.

Go to the page:

<https://yourmoodleserver/admin/search.php#linkmodules>

Click on the "Manage tools" button of the "External tool" activity module:

## Site administration

General    Users    Courses    Grades    Plugins    Appearance    Server    Reports    Development

### Plugins

[Install plugins](#)

[Plugins overview](#)

### Activity modules

[Manage activities](#)

[Common activity settings](#)

[Assignment](#)

[Assignment settings](#)

[Submission plugins](#)

[Manage assignment submission plugins](#)

[File submissions](#)

[Online text submissions](#)

[Feedback plugins](#)

[Manage assignment feedback plugins](#)

[Feedback comments](#)

[Annotate PDF](#)

[File feedback](#)

[Offline grading worksheet](#)

[Book](#)

[Chat](#)

[Database](#)

[External tool](#)

[Manage tools](#)

[Feedback](#)

[File](#)

Then copy and paste the Nudgis dynamic registration URL:

Add tool

<https://your.nudgis/lti/adv/registration/>

[Add LTI Advantage](#)

[Add Legacy LTI](#)

Alternatively, you can [configure a tool manually](#).

Remember that LTI must be enabled in Nudgis and that you must be logged in Nudgis with an administrator account to use this URL.

Click on the "Add LTI Advantage" button.

Moodle will open a page on Nudgis which should show a success message.

Click on the "Close" button:

## Manage tools

Cancel

### Dynamic registration

The tool registration is complete.

Close

Nudgis is now registered in Moodle, click on the "Activate" button to be able to use it in Moodle:

## Tools

The screenshot shows the Moodle 'Tools' page. At the top, there are navigation buttons: a left arrow, 'First', '1' (which is highlighted in blue), 'Last', and a right arrow. Below these are three icons: a gear, a list, and a trash can. A green button labeled 'Pending' is visible. In the center, there is a card for the 'Nudgis' tool. The card features a blue circular logo with a white upward-pointing arrow. The word 'Nudgis' is written in bold black text below the logo. To the left of the card, there is a text area with the placeholder 'Click here to give this tool a description'. At the bottom of the card is a green button with the word 'Activate' in white.

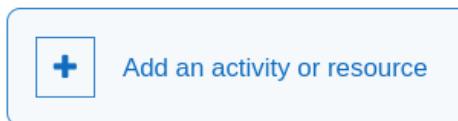
If necessary, you can customize the name of the tool provider by editing its settings.

### 2.1.1.2. Adding content

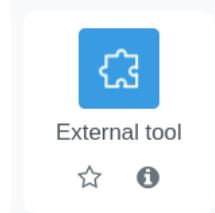
Go to a course in Moodle and turn on the edition mode in the top right corner of the page:

Edit mode 

Then add an activity in the course:



Choose "external tool":



Select the preconfigured tool and click on "Select":

## ✿ Adding a new External tool?

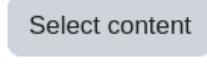
### ▼ General

Activity name 

Show more...

Preconfigured tool 

 Select content

Tool URL 

Select a content in the window, the content link will appear in the "tool URL":

## ▼ General

Activity name	<span style="color: red;">!</span> Test media
<a href="#">Show more...</a>	
Preconfigured tool	<span style="color: teal;">?</span> dev MS <span style="border: 1px solid black; padding: 2px;">+ * ×</span> <span style="border: 1px solid #ccc; padding: 2px; border-radius: 5px; text-decoration: none; color: inherit;">Select content</span>
Tool URL	<span style="color: teal;">?</span> <a href="https://dev.webtopia.fr/lti/p1266301ba99f7ubvrzg/">https://dev.webtopia.fr/lti/p1266301ba99f7ubvrzg/</a>

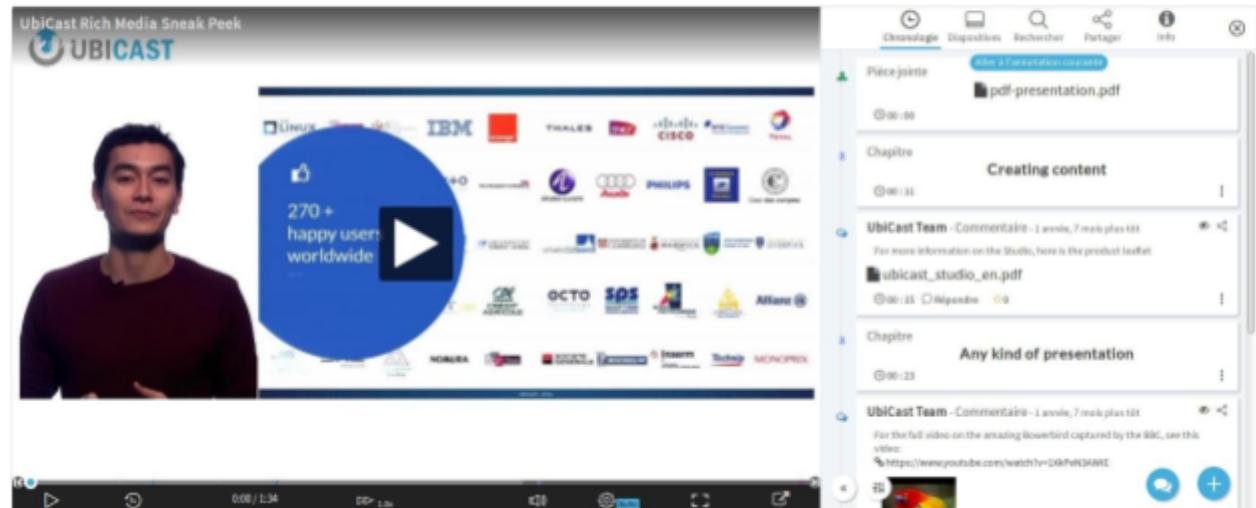
Before saving the activity please check that your browser did not autofill the "Consumer key" and "Shared secret" with your Moodle user/password. These fields must be empty. Finally, click on "save and display".

The media is then directly viewable inside Moodle (and administrable if the role allows it. Access to editing and statistics is indicated below by the red circle on the top right of the video player):

### LTI tests

[Home](#) > My courses > LTI tests > Tests > ubicast.tv - LTI video

#### ubicast.tv - LTI video



## 2.1.2. Moodle Plugins

Note: these plugins rely on LTI 1.1, and will be deprecated in favor of the generic LTI 1.3 integration in the long run, when student submissions using LTI 1.3 will be available.

A demo is available here for the UbiCast Nudgis Moodle :

<https://help.ubicast.tv/permalink/v125cf904c4dbtknl3i6/>.

You can find the UbiCast Nudgis Moodle on Moodle plugins directory

<https://moodle.org/plugins/?q=ubicast>

### 2.1.2.1. Plugins configuration

UbiCast provides an Open-Source Moodle building block, that once deployed onto your Moodle server, adds a new activity type. You can find this plugin at this address :

[https://moodle.org/plugins/mod\\_ubicast](https://moodle.org/plugins/mod_ubicast)



Then, you will need to provide your LTI credentials (the key and the secret) to add them to the UbiCast Nudgis plugin settings (Administration > Advanced features > Plugins > Activity modules > UbiCast Nudgis plugin) :

<https://moodle/admin/settings.php?section=modsettingubicast>

#### UbiCast Nudgis plugin

The settings page for the UbiCast Nudgis plugin. It contains the following fields:

- Nudgis base URL**:  Default: Empty. Description: Enter the Nudgis base URL. Example: "https://nudgis.ubicast.tv".
- Nudgis LTI key**:  Default: Empty. Description: Enter the Nudgis LTI key. An LTI key looks like "xmz9GgcutbUvwDFNBzHMryMmzyX7wy".
- Nudgis LTI secret**:  Description: Enter the Nudgis LTI secret. An LTI secret looks like "4fCQKsxQwFsxCCvdd4Dq9cxNbhZK4afPBpY312wq1mASGkAgC9rjy8n9QEPq8".
- Show only user's media in selection**:  Default: Yes. Description: When selecting a media to embed, show only media for which the user is set as the speaker. This setting is ignored if Nudgis is using a version below or equal 8.3.0.

**Save changes** button.

You will also if needed to [enter your LTI credentials in the external LTI connector](#).

Note that two additional plugins are available and will be described later; they require the main mod\_ubicast plugin to function:

- Add a button into text editors:[https://moodle.org/plugins/atto\\_ubicast](https://moodle.org/plugins/atto_ubicast)
- Add a custom channel block: [https://moodle.org/plugins/block\\_ubicast](https://moodle.org/plugins/block_ubicast)

Please note that when using these plugins, **no LTI score (grade) will be posted**; this is a technical limitation of the approach that we chose. If you need scores, you must use the [generic LTI integration](#).

Download ZIP from Moodle plugin repository then add it to Site Administration > Plugins > Install Plugins > Install plugin from ZIP file.

You should get in the plugin overview those three plugins in their category respectively Activity modules, blocks and Atto HTML editor / Atto plugins :

 UbiCast Nudgis plugin mod_ubicast	4.0 2022021800	Enabled	<a href="#">Settings</a>	<span style="background-color: #0070C0; color: white; padding: 2px;">Additional</span> Required by: block_ubicast, filter_ubicast, atto_ubicast
 Insert a media from Nudgis atto_ubicast	1.5 2022021800		<a href="#">Settings</a>	<span style="background-color: #0070C0; color: white; padding: 2px;">Additional</span> Required by: filter_ubicast
 Nudgis videos block_ubicast	1.4 2022021800	Enabled	<a href="#">Uninstall</a>	<span style="background-color: #0070C0; color: white; padding: 2px;">Additional</span>

For the Atto plugins, you should have in Site administration > Plugins > Text Editors > Atto HTML editor > Atto toolbar settings, this toolbar config :

```
Toolbar config
editor_atto.toolbar
collapse = collapse
style1 = title, bold, italic
list = unorderedlist, orderedlist
links = link
files = image, media, recordrtc, managefiles, ubicast
style2 = underline, strike, subscript, superscript
align = align
indent = indent
insert = equation, charmap, table, clear
```

### 2.1.2.2. Adding content as resource

Enable edit mode, select “Add activity or resource”, scroll down and select “MediaServer resource”:

## Add an activity or resource

x

Search

All Activities Resources

Assignment	Book	Chat	Choice	Database	External tool
File	Folder	Forum	Glossary	H5P	IMS content package
Label	Lesson	Nudgis resource	Page	Quiz	SCORM package
Survey	Tin Can Launch Link	URL	Wiki	Workshop	lmsdemo.ubicast.t.tv

⌚ Adding a new Nudgis resource ⌚

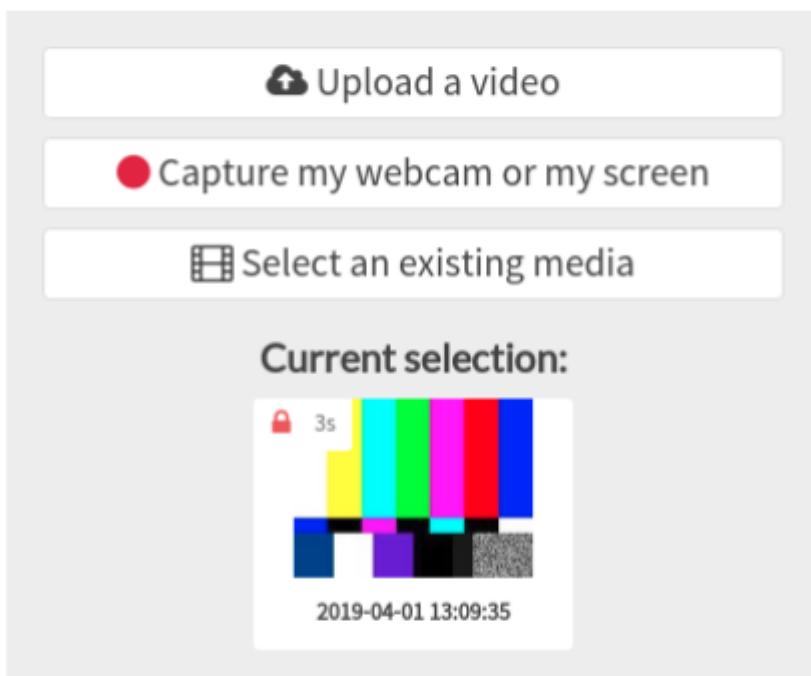
▼ General

## Resource

-  Upload a video
-  Capture my webcam and/or my screen
-  Select an existing media

After the media selection process, the content is pre-selected:

▼ Resource



Resource ID \*

And will be accessed by teachers and students using LTI



### 2.1.2.3. Adding content into text editors

If the [UbiCast Nudgis atto button plugin is installed](#), a new button is visible:

#### • Adding a new Nudgis resource •

##### ▼ General

Name

Description



The same selector will be displayed, albeit with additional size settings:

##### ▼ Resource

The image shows a media selection dialog. At the top are three buttons: 'Upload a video', 'Capture my webcam or my screen' (which is highlighted with a red dot), and 'Select an existing media'. Below these is a section titled 'Current selection:' showing a thumbnail of a video frame with a timestamp of 2019-04-01 13:09:35. At the bottom is a field labeled 'Resource ID \*' containing the value 'v125cf1afa397ko5i8j1', which is also highlighted with a red border.

### 2.1.2.4. Course block plugin

The [UbiCast Nudgis block plugin](#) plugin adds a new block type:

Add a block

X

Latest announcements
Latest badges
Learning plans
Logged in user
Mentees
Navigation
<b>Nudgis videos</b>
Online users
Private files
Random glossary entry
Recent activity
Recent blog entries
Remote RSS feeds
Search forums
Section links
Self completion

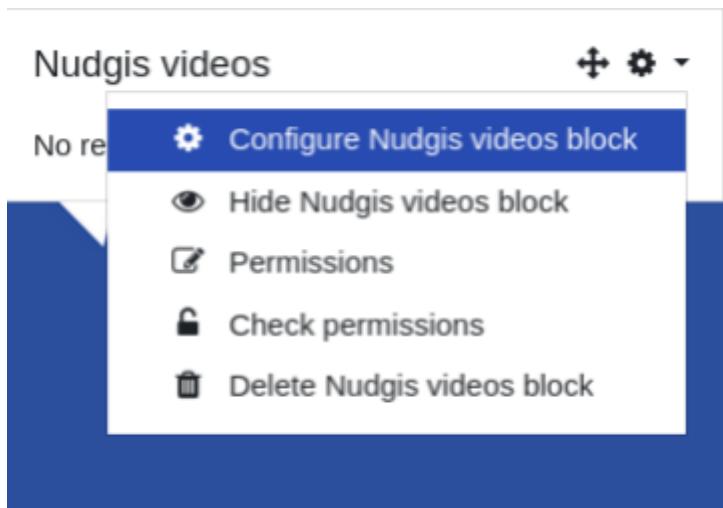
Cancel

Once added, the settings allow to set the channel (or media) to show:

Nudgis videos



No resource ID set.



Note that you need to copy-paste the channel ID:

## Configuring a Nudgis videos block

### ▼ Block settings

Block title

Nudgis videos

Block height (px)

400

Nudgis channel ID

c125850a074c6viioi42



The course will now show all videos from the channel in the course:

Nudgis videos ⊕ ⚙ -

Video Title	Length	Created On	Views	Storage Usage
Test	54 s	Created on 22 November 2021 at 11:39 AM	5 views	Storage usage: 21.3 MB
test	39 s	Created on 20 November 2021 at 4:42 PM	2 views	Storage usage: 18.7 MB
Wébinar - Les usages de la vidéo pédagogique	26 m 34 s	Created on 19 November 2021 at 7:28 PM	1 views	Storage usage: 939.4 MB
Générique	9 s	Created on 19 November 2021 at 7:21 PM		

## 2.2. Blackboard

### 2.2.1. Blackboard configuration

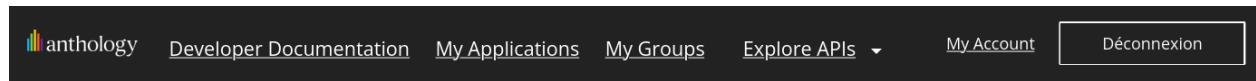
Please refer to the official Blackboard configuration tutorial:

[https://help.blackboard.com/Learn/Administrator/SaaS/Integrations/Learning\\_Tools\\_Intoperability#addlti13](https://help.blackboard.com/Learn/Administrator/SaaS/Integrations/Learning_Tools_Intoperability#addlti13)

#### Step 1: Register the application

To setup the LTI integration in Blackboard, you first have to register your Nudgis portal in the Blackboard applications.

To do that, go on <https://developer.blackboard.com> and click on "My applications".



You don't have any Applications registered yet.

Register one to get the key information and integrate your application with our platform.

[Register a REST or LTI application](#)

Then click on "Register a REST or LTI application".

Fill the information as follows:

(replace the domain with the one of your Nudgis portal and set the value you want in the application name and description)

# Register a new application

Enter your applications name and description. Users see this information when adding the application to their environment. Include a version number if there are multiple versions of the application.

\* Application Name

Your Nudgis

\* Description

450 character limit

Your ~~Nudgis~~ portal

\* Domain(s)

Separate domains with commas

your.nudgis.portal

Group

Group

My Integration supports LTI 1.3



Login Initiation URL

<https://your.nudgis.portal/lti/adv/login/>

Tool Redirect URL(s)

Separate URLs with commas

<https://your.nudgis.portal/lti/adv/launch/>

Tool JWKS URL

For a tool's public key access

<https://your.nudgis.portal/lti/adv/jwks/>

Signing Algorithm

RS256

Custom Parameters

Cancel

Register Application

Click on "Register application".

Keep all data from the resulting page aside:

## Your Nudgis Key

### Important note!

The secret is only shown once. Make note of the application key and secret and store them in a safe and secure location.

#### Application key

08b

b797c2

Copy

#### Secret

8u:

/Cq7

Copy

#### Application ID

d5

947f

Copy

#### Issuer

<https://blackboard.com>

Copy

#### Public keyset URL

<https://developer.blackboard.com/.well-known/jwks.json>

Copy

#### Auth token endpoint

<https://developer.blackboard.com/api/v1/gateway/oauth2/jwttoken>

Copy

#### OIDC auth request endpoint

<https://developer.blackboard.com/api/v1/gateway/oidcauth>

Copy

Done

## Step 2: Register the tool

In your Blackboard portal, go to "Administrator Panel" > "LTI Tool Providers" (in "Integrations" section):

The screenshot shows the Blackboard Administrator Panel interface. At the top, it displays "Administrator Panel" and "Blackboard Learn® | Release 3900.54.0-rel.18+34af7f1". On the right, there's a "Blackboard" logo with "Products: C Login: Blad Theme: Bb". The main content area is divided into several sections:

- Users**: Includes links for "Users", "Customize User Information", "Institution Roles", "System Roles", and "Course/Organization Roles".
- Courses**: Includes links for "Courses", "Course Settings", "Course Catalog", "Move Files to Course Files", and "Terms".
- Organizations**: Includes links for "Organizations", "Organization Settings", "Organization Catalog", and "Move Files to Organization Files".
- The Ultra experience is here!**: A central box featuring a school bus icon with letters A, B, and C. It says "Enable!" and contains text: "Important: If you change your mind after enabling the Ultra experience, your Test environment will need to be recreated entirely. All data will be lost. Contact Blackboard Support on Behind the Blackboard™ to arrange a system reset." Below this is a "Release Notes" link.
- Help**: Includes links for "Blackboard Help for Administrators", "Behind the Blackboard™", "On Demand", "Blackboard Developer Network", and "Help for Administrators".
- Cloud Management**: Includes links for "Software Updates" and "Cloud Connector".
- Security**: Includes links for "Privileges", "Session Fingerprint Settings", "Gateway Options", "Hostname Configuration", "Alternate Domain for Serving Content", "Safe HTML Filters", "Account Lock Settings", "Password Settings", "Cookie Disclosure", and "Input Validation Filter".
- Integrations**: Includes links for "Data Integration", "Authentication", "Building Blocks", "Web Services", "LTI Tool Providers" (which is highlighted with a red box), "Respondus Proctoring Integration", and "REST API Integrations".

Click on "Register LTI 1.3/Advantage tool":

The screenshot shows the "LTI Tool Providers" page. At the top, it has a header "LTI Tool Providers". Below the header, there are three buttons: "Manage Global Properties", "Register LTI 1.1 Provider", and "Register LTI 1.3/Advantage Tool". The "Register LTI 1.3/Advantage Tool" button is highlighted with a large red rectangular box.

Put the value of the "Application key" from step 1 in the client id field and click on submit.

In the resulting page, set "Tool status" as "Approved", check all boxes in "User fields to send" and set "Allow grade service access" to "Yes".

Keep the value of deployment id, it will be necessary for the Nudgis configuration.

**TOOL STATUS**

---

Client ID	d52	47f
Name	Your Nudgis	
Description	Your Nudgis portal	
Deployment ID	5	f273
Initiate Login URL	https://c /lti/adv/login/	
Tool Redirect URLs	https://c /lti/adv/launch/	
JWKS URL	https:// /lti/adv/jwks/	
Domains	fr	
Tool Status	<input checked="" type="radio"/> Approved <input type="radio"/> Excluded	
Tool Provider Custom Parameters		

---

**INSTITUTION POLICIES**

---

User Fields to Send	<input checked="" type="checkbox"/> Role in Course <input checked="" type="checkbox"/> Name <input checked="" type="checkbox"/> Email Address
Allow grade service access	<input checked="" type="radio"/> Yes <input type="radio"/> No
Allow Membership Service Access	<input type="radio"/> Yes <input checked="" type="radio"/> No
Show User Acknowledgment Message	<input type="radio"/> Yes <input checked="" type="radio"/> No

Click on "submit" to validate the new tool.

In the tools list, click on the arrow next to the name of the added tool and click on "Manage placements":

The screenshot shows the 'LTI Tool Providers' section of a management interface. At the top, there are three buttons: 'Manage Global Properties', 'Register LTI 1.1 Provider', and 'Register LTI 1.3/Advantage Tool'. Below this is a table with columns: TOOL TYPE, STATUS, CREDENTIALS, and SENDS USER DATA. The table contains four rows:

TOOL TYPE	STATUS	CREDENTIALS	SENDS USER DATA
LTI 1.3 Tool	Excluded		No
LTI 1.1 Tool	Approved	Per Link	No
LTI 1.3 Tool	Approved	RS256	Role, Name, Email

The fourth row, 'Your Nudgis', has a checked checkbox. To its right is a dropdown menu with options: 'Edit', 'Manage Placements', 'Usage Report', 'Approve', 'Exclude', and 'Delete'. The 'Manage Placements' option is highlighted.

Click on the create placement button:

The screenshot shows a modal dialog box titled 'Create Placement'. The dialog has a light gray background and a white content area. There is some placeholder text or a form field visible in the center of the dialog, though its content is not clearly legible.

Add a placement to allow users to select content from Nudgis.

You can choose to activate or not "Allow student access".

You can set any value in "Handle".

In the "Target link URI", you can add "?all" in the URL end in order to show all content to users and not only the content which belongs to the user.

#### PLACEMENT INFORMATION

\* Label

Description  
For the toolbar, press ALT+F10 (PC) or ALT+FN+F10 (Mac).

Handle

\* Availability  Yes  No

Type  Deep Linking content tool  
 Allow student access

Course content tool  
 Allows grading

Course tool  
 Allow student access

System tool  
 Administrator tool  
 Base navigation tool  
 Course navigation tool  
 Cloud document

Launch in New Window

Icon

#### TOOL PROVIDER INFORMATION

\* Target Link URI

### Step 3: Configure LMS in Nudgis

In Nudgis, go to "Administration" > "Authentication services" > "LTI" and click on "Register a new LMS" in the "LMS (Learning Management System) definitions" section.

Fill the information as follows:

The client identifier is the "application id" value from step 1.

The deployment identifier value is get from step 2.

LMS (Learning Management System) definitions

This section is applicable only to LTI 1.3.

▼ Register a new LMS

?	Issuer:	https://blackboard.com
?	Client identifier:	d52 5947f
?	Login endpoint:	https://developer.blackboard.com/api/v1/gateway/oidcauth
?	Authorization endpoint:	https://developer.blackboard.com/api/v1/gateway/oauth2/jwttoken
?	OAuth2 audience:	
?	JWKS endpoint:	https://developer.blackboard.com/well-known/jwks.json
?	Deployment identifiers:	5d6d 273
?	Key to use:	Generate a new key ▾ Display public key

## 2.2.2. Adding content

Please refer to the official Blackboard documentation :

[https://help.blackboard.com/Learn/Instructor/Ultra/Course\\_Content/Create\\_Content/Add\\_Content\\_From\\_External\\_Sources](https://help.blackboard.com/Learn/Instructor/Ultra/Course_Content/Create_Content/Add_Content_From_External_Sources)

Go to a course in Blackboard and click on the "Content" link in the navigation bar.  
Hover the "Build content" button and click on the "Nudgis content" link.

The screenshot shows the Blackboard Ultra interface. On the left, there's a sidebar with sections like 'Test course', 'Content Management', 'Control Panel', and 'Grade Center'. The 'Content' section is expanded, showing links for Home Page, Information, Content (which is selected), Discussions, Groups, Tools, and Help. On the right, the main content area has a title 'Content'. Below it, there's a 'Build Content' dropdown menu. A sub-menu is open under 'Create', listing options: New Page, Item, File, Audio, Image, Video, Web Link, Learning Module, Lesson Plan, Syllabus, Course Link, Content Package (SCORM), and Nudgis content. The 'Nudgis content' option is highlighted with a red rectangular box.

Once the Nudgis content is selected, it will appear in the Blackboard course content.

Content ↗

---

Build Content ↘ Assessments ↘ Tools ↘ Partn

---

 [My Nudgis video ↗](#)

## 2.3. Brightspace

### 2.3.1. Brightspace setup

As an administrator, go to "Admin tools" > "Manage Extensibility" > "LTI Advantage".

Click on "Register Tool":

The screenshot shows a user interface for managing LTI Advantage tools. At the top, there are three tabs: "ID Key Authorization", "OAuth 2.0", and "LTI Advantage", with "LTI Advantage" being the active tab. Below the tabs, a message states: "This list contains LTI Advantage tools registered by your institution." Underneath this message are three buttons: "Register Tool" (highlighted with a blue background), "Enable", and "Disable".

Then copy and paste the Nudgis dynamic registration URL:

The screenshot shows a "Register a Tool" dialog box. In the "How would you like to register your tool?" section, the "Dynamic" option is selected. In the "Tool initiation registration endpoint \*" section, the URL "https://your.nudgis/lti/adv/registration/" is entered. A checkbox labeled "Configure Deployment" is checked. At the bottom are "Register" and "Cancel" buttons.

Be sure to check the "Configure deployment" box.

Remember that LTI must be enabled in Nudgis and that you must be logged in Nudgis with an administrator account to use this URL.

Click on the "Register" button.

A popup will appear and you should see a success message:

# Dynamic registration

The tool registration is complete.

Close

Click on the "Close" button.

The Nudgis tool provider is now registered in Brightspace.

You have to enable it to make it available.

To do that, select the tool and click on the "Enable" button next to the "Register" button.

This screenshot shows the 'LTI Advantage' tab of a tool registration interface. At the top, there are three tabs: 'ID Key Authorization', 'OAuth 2.0', and 'LTI Advantage', with 'LTI Advantage' being the active tab. Below the tabs, a message states: 'This list contains LTI Advantage tools registered by your institution.' There are three buttons below the message: 'Register Tool' (blue), 'Enable' (light gray), and 'Disable' (light gray). Below these buttons is a filter bar with three options: 'All' (light gray), 'Enabled' (light gray), and 'Disabled' (dark gray, indicating it is selected). The main area displays a table with two rows. The first row has a checkbox and the word 'Tool'. The second row has a checkbox and the word 'Nudgis' in blue text, indicating it is the selected item. The 'Nudgis' row is highlighted with a light gray background.

	Tool
<input type="checkbox"/>	Nudgis

Now, go to "Admin tools" > "External Learning Tools" > "LTI Advantage".

You should see your Nudgis in the enabled tools providers. If it is not enabled, you have to enable it like in the previous page.

The screenshot shows the 'External Learning Tools' section of the LTI Advantage interface. At the top, there are links for 'LTI Advantage', 'Manage Tool Links (Legacy)', 'Manage Tool Providers (Legacy)', and 'Migration Log'. A green banner on the left says 'You can now migrate from Legacy LTI' with a 'Learn More' link. Below this are buttons for 'New Deployment', 'Enable', and 'Disable'. A filter bar shows 'Enabled' is selected. A search bar with placeholder 'Search...' and a magnifying glass icon is on the right. A message '1 item in the list.' is displayed above a table. The table has columns: Deployment Name, Registration Name, Available Extensions, Last Modified Date, and Status. One row is shown for 'Nudgis'.

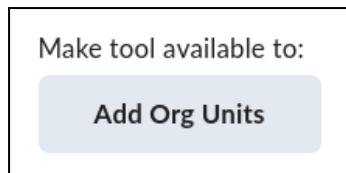
	Deployment Name ▲	Registration Name	Available Extensions	Last Modified Date	Status
<input type="checkbox"/>	Nudgis	Nudgis	<input checked="" type="checkbox"/> Assignment and Grade Services <input checked="" type="checkbox"/> Deep Linking	2/1/2023 6:02 PM	Enabled

If you intend to use the Nudgis feature that moves automatically the content according to the LTI context, you will have to enable the context fields in the tool provider. To do that, click on the Nudgis link and check the "Link information" in security settings then save the changes:

The screenshot shows the 'Security Settings' dialog. It asks to select information to share with the tool. Several checkboxes are checked, including 'Name' (with sub-options for First Name, Middle Name, and Last Name), 'Link Information' (with sub-options for Title and Description), and 'Classlist including users not known to this deployment'.

For the tool provider to be available in courses, you will have to allow it in each course you want.

In the settings of the tool provider, click on "Add Org Units":



Choose the courses you want:

**Add Org Units**

Filter by Org Unit Type

Choose Org Unit Typ ▾

	Name ▲ , Code	Type	Options
<input checked="" type="checkbox"/>	Adventures with GBL, Dev-GBL	Course Offering	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants
<input checked="" type="checkbox"/>	All Migrated Courses Semester, sem_courseconversion_d2l	Semester	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants
<input checked="" type="checkbox"/>	Brightspace Accessibility, BA	Course Offering	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants
<input checked="" type="checkbox"/>	Brightspace Samples, dept_sample	Department	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants
<input checked="" type="checkbox"/>	Build Your Course, Build	Course Offering	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants
<input checked="" type="checkbox"/>	Build Your Course Template, temp_build	Course Template	<input checked="" type="radio"/> This org unit <input type="radio"/> All descendants <input type="radio"/> This org unit and all descendants
		Course	

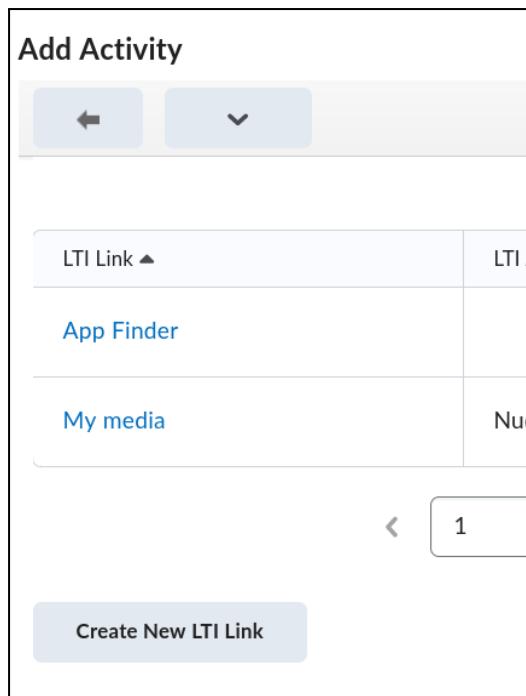
Add      Cancel

Then click on "Add" and save the changes of the settings.

### 2.3.2. Using the test page

If you need to use the test page, you will have to go to a course module where the tool provider is allowed.

Click on the "Exisiting activities" button and on "External learning tools":

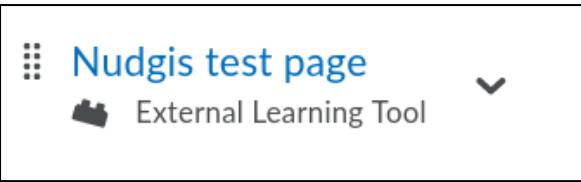


Click on "Create new LTI link".

Fill the name and the URL and click on "Create and insert":

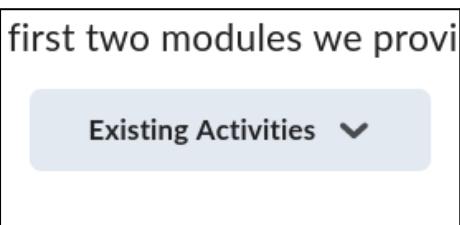
A screenshot of the "Create" step of the "Add Activity" process. The title "Create" is displayed prominently. There are three input fields: "Title \*" containing "Nudgis test page", "LTI URL \*" containing "https://your.nudgis/lti/adv/test/", and "Tool \*" containing "Legacy LTI Tool". At the bottom, there are three buttons: a large blue "Create and Insert" button, a smaller "Create" button, and a "Cancel" button.

You will now have an activity in the course that allows you to access the Nudgis test page:



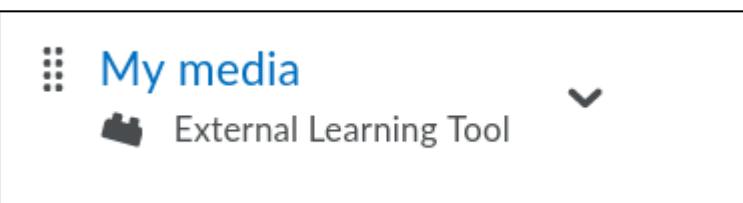
### 2.3.3. Adding content

For each allowed course, a button to select or create a media from Nudgis is available in the "Existing activities".



The name of the link can be changed in the "View links" section of the tool provider settings of Brightspace.

Once a media is selected, it will appear as a course activity:



And when a user click on it, it opens the content with the permissions granted by the user role:



#### 2.3.4. Enable content insertion in text editors

A) From the Brightspace External Learning Tools configuration page of the Nudgis integration, at the bottom of the page, click on the “View Links” link:

A screenshot of the Brightspace Deployment Details dialog box. It shows a deployment ID "3a8591d6-3774-48a6-9c71-ccff8ec736f9" with a copy icon. Below it is a red-bordered "View Links" button. At the bottom are three buttons: "Save and Close" (blue), "Save" (grey), and "Cancel" (grey).

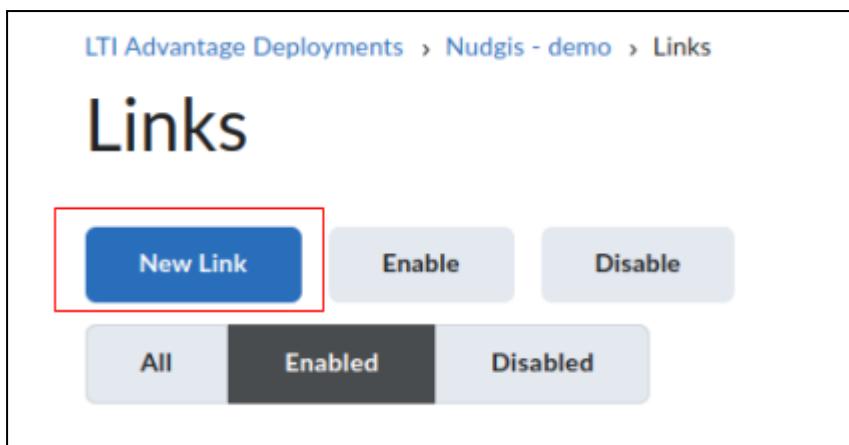
B) Click on “New Link”

LTI Advantage Deployments > Nudgis - demo > Links

# Links

New Link    Enable    Disable

All    Enabled    Disabled



C) Select the “Deep Linking Insert Stuff” type

LTI Advantage Deployments > Nudgis - demo > Links > Create Link

## Create Link

Enabled

Name \*

Insert link to Nudgis video

URL \*

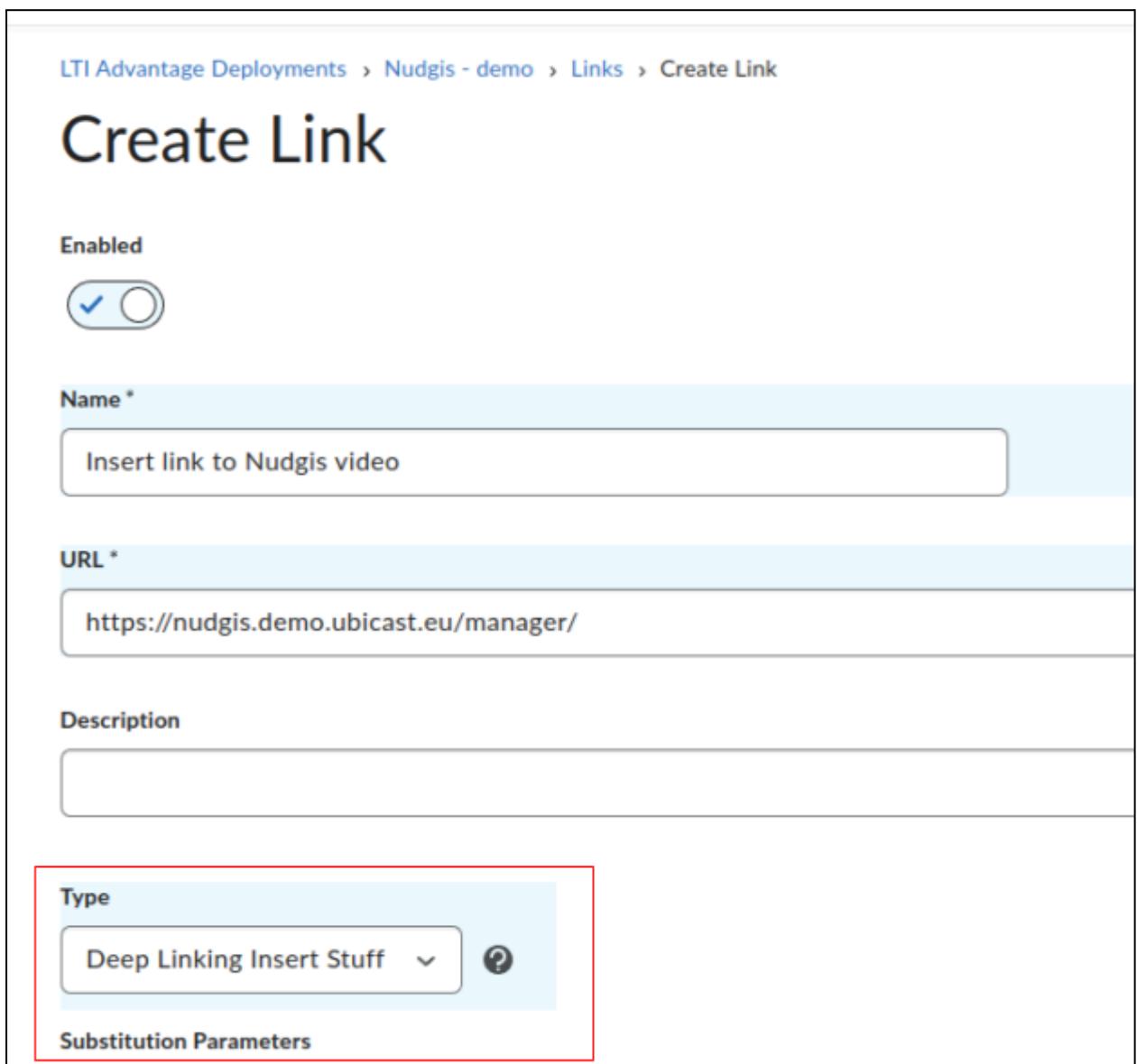
<https://nudgis.demo.ubicast.eu/manager/>

Description

Type

Deep Linking Insert Stuff

Substitution Parameters



D) From now on the icon below in any text field will allow to insert content

[contact@ubicast.eu](mailto:contact@ubicast.eu)  
<https://dors.ubicast.eu/>

## Create a File in "tst module"

Test file

Select a Document Template ▾

Hide from Users

Paragraph ▾ | **B** *I* U  $\wedge$  |  $\equiv$  ▾  $\equiv$  ▾ ▶||  
○□   

Insert Stuff

-  My Computer >
-  Insert link to Nudgis video >
-  Course Offering Files >
-  Public Files >
-  Learning Repository >
-  ePortfolio >
-  Add Video Note >
-  Video Note Search >

Cancel 

The screenshot shows a rich text editor interface. At the top left is a text input field labeled "Test file". To its right is a button labeled "Select a Document Template" with a dropdown arrow. Below these are two checkboxes: one for "Hide from Users" and another for "Send playback progress as grade". A horizontal toolbar below the checkboxes includes icons for Paragraph, Bold (B), Italic (I), Underline (U), Alignment, and other document functions. The main text area contains the timestamp "23/03/2023 14:53:49" in blue.

### 2.3.5. Enabling playback grades

The player will report a playback grade when the student leaves the page (1.0 if he watched the entire video).

A) Make sure that the “Send playback progress as grade” is enabled on Nudgis:

This screenshot shows a configuration settings panel. It features a section titled "Unique context id:" with a question mark icon and a checkbox labeled "Default value: No". Below it is another section titled "Send playback progress as grade:" with a question mark icon and a checked checkbox. To the right of the checked checkbox is the text "Default value: No".

B) Ensure that “Auto Create Grade Items” is enabled in the Brightspace External Learning Tool setup page

This screenshot shows the "Configuration Settings" section of the Brightspace External Learning Tool setup page. It contains three checkboxes: "Open as External Resource" (unchecked), "Grades created by LTI will be included in Final Grade" (unchecked), and "Auto Create Grade Items" (checked). Below this section is a "Substitution Parameters" section, which is currently empty.

C) Grades will now show up in the Manage Grades page (remember that grades will only get reported for Learner/Student roles, not admin or teacher)

The screenshot shows the 'Grades' section of the Nudgis LMS integration interface. At the top, there is a navigation bar with links: Content, Quick Eval, Assignments, Discussions, Quizzes, Classlist, and Grades. The 'Grades' link is highlighted with a red box. Below the navigation bar, there are four buttons: Enter Grades, Manage Grades (which is underlined and has a red box around it), Schemes, and Setup Wizard. Underneath these buttons are two action buttons: 'New' and 'More Actions'. A 'Bulk Edit' button is located below the action buttons. The main area is titled 'Grade Item' and contains three rows of data. Each row has a checkbox in the first column. The second column contains the grade item name and a dropdown menu. The third column contains a help icon. The rows are: 1. Grade Item (checkbox, empty dropdown). 2. Playback (checkbox, dropdown menu with 'Playback' and a help icon). 3. Final Calculated Grade (checkbox, dropdown menu with 'Final Calculated Grade' and a help icon).

# Item Statistics: Playback

Class Statistics

User Statistics

## Playback Class Statistics

Number of submitted grades: 1 / 2

Minimum:	<div style="width: 77%; background-color: yellow;"></div>	77 %
Maximum:	<div style="width: 77%; background-color: yellow;"></div>	77 %
Average:	<div style="width: 77%; background-color: yellow;"></div>	77 %

Mode: None

Median: 77 %

Standard Deviation: 0 % ?

## Grade Distribution

