BigBlueButton in Open edX

April 27, 2023

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Jesus Federico, Director of Integrations jesus@blindsidenetworks.com

Who is Blindside Networks?

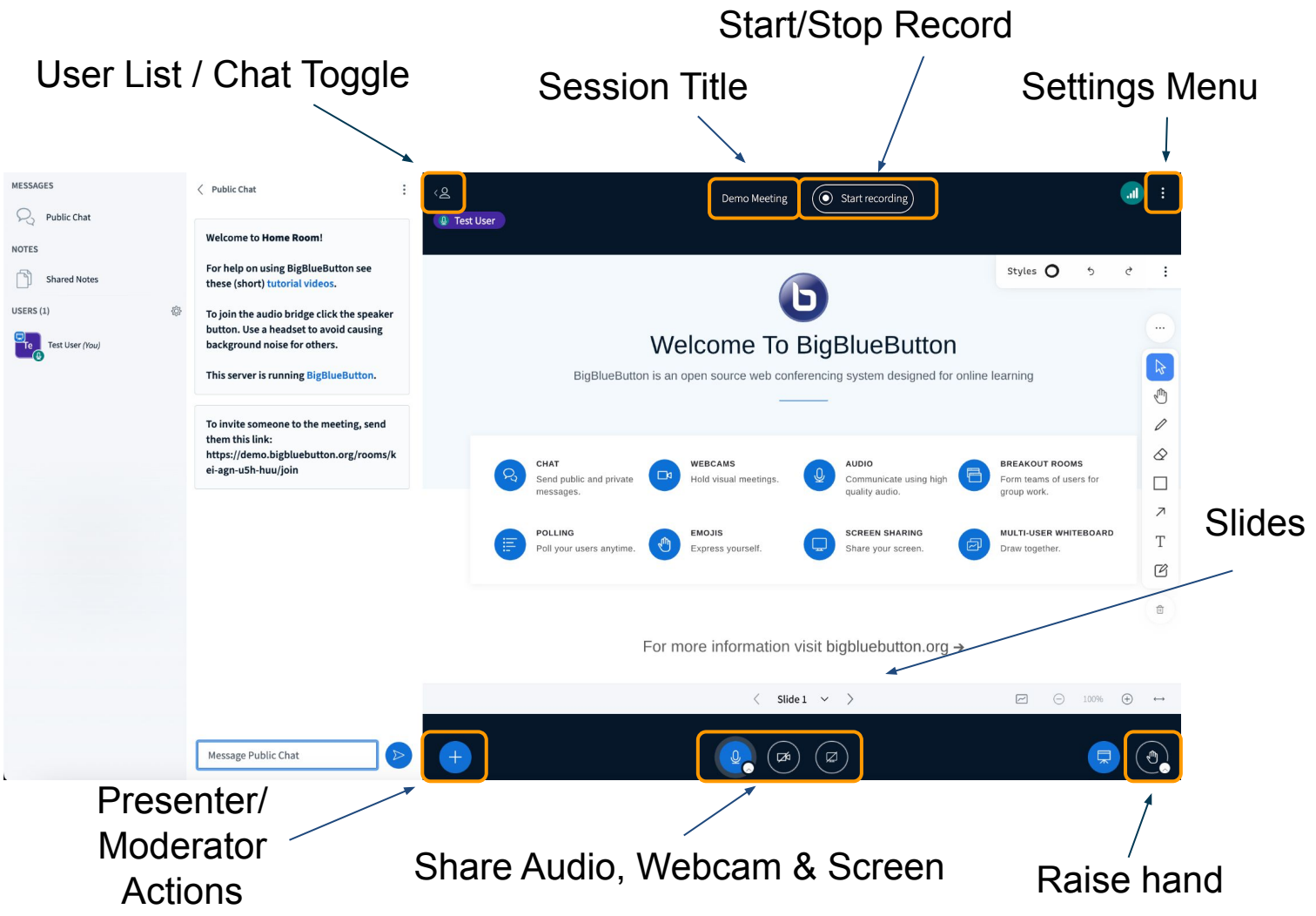
We started the BigBlueButton project in 2007.

We have done over 2,000,000,000 minutes (that's billion with a 'B') of online classes in the past 3 years.

What is BigBlueButton?

An open source project to build the world's most effective virtual classroom, one that **maximizes time** for **applied learning** and **feedback**.

A global open source project localized into over 55 languages.


User List / Chat Toggle
Session Title
Start/Stop Record
Settings Menu
MESSAGES
Public Chat
NOTES
Shared Notes
USERS (1)
Test User (You)
Public Chat
Welcome to Home Room!
For help on using BigBlueButton see these (short) tutorial videos.
To join the audio bridge click the speaker button. Use a headset to avoid causing background noise for others.
This server is running BigBlueButton.
To invite someone to the meeting, send them this link: https://demo.bigbluebutton.org/rooms/kei-agn-u5h-huu/join
Message Public Chat
Test User
Demo Meeting
Start recording
Styles
Welcome To BigBlueButton
BigBlueButton is an open source web conferencing system designed for online learning
CHAT
Send public and private messages.
WEBCAMS
Hold visual meetings.
AUDIO
Communicate using high quality audio.
BREAKOUT ROOMS
Form teams of users for group work.
POLLING
Poll your users anytime.
EMOJIS
Express yourself.
SCREEN SHARING
Share your screen.
MULTI-USER WHITEBOARD
Draw together.
For more information visit bigbluebutton.org
Slide 1
100%
Slides
Presenter/ Moderator Actions
Share Audio, Webcam & Screen
Raise hand

Outline

Why BigBlueButton is different?

How do we integrate with Open edX?

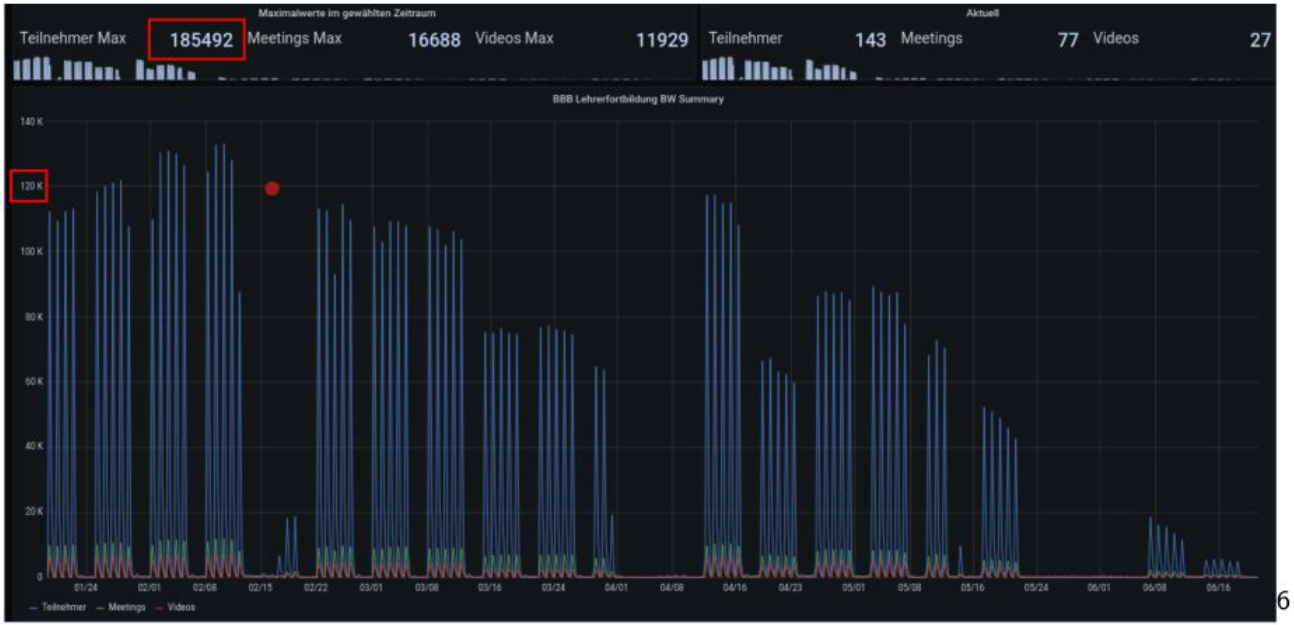
What is possible with the integration

The future of the LTI integration

How you can build upon what we have created (and help accelerate it!)

Why BigBlueButton is different

More than 185000 parallel users



[6]

[6]Note: The scale on the left is to low, because of the averaging window.

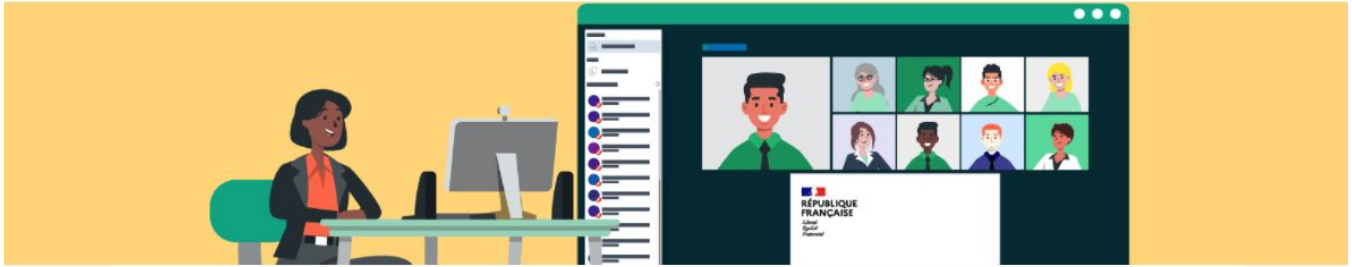
numerique.gouv.fr/outils-agents/webinaire-etat/

RÉPUBLIQUE FRANÇAISE
Liberté
Égalité
Fraternité

digital.gov. *Fr*

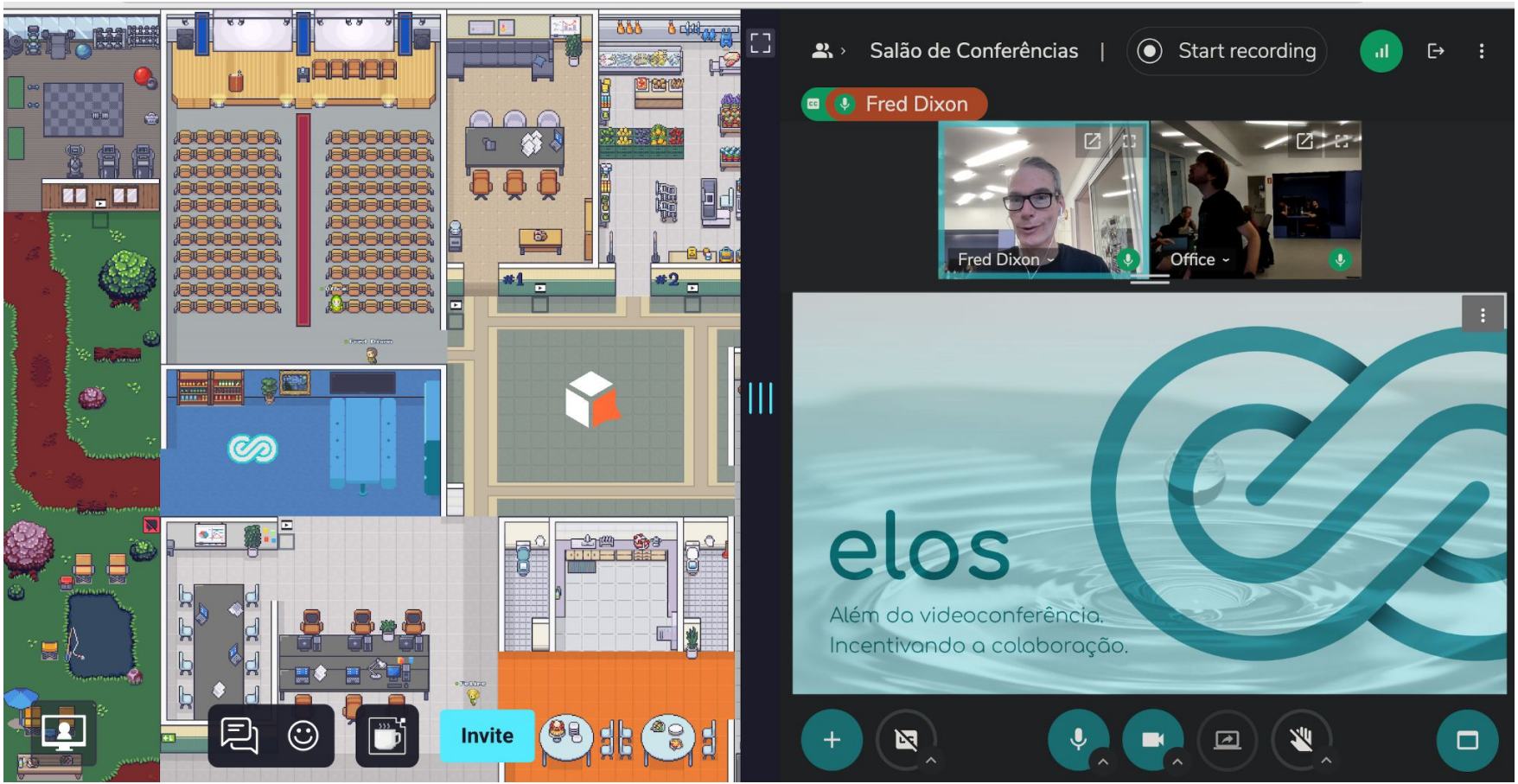
DINUM News Diary Publications Services Agent tools Recruitment

Homepage > Agent tools > State Webinar



State Webinar

A service dedicated to government officials for their online seminars, training, presentations, virtual conferences, up to 350 participants.



Use within Work Adventure in the Presentation

Building and Running an edX Course
1. General Information
2. Getting Started
3. Exploring Your Dashboard and Profile
4. Reaching As Many Learners As Possible
5. Accessibility Best Practices Guidance for Content Providers
6. Setting Up a Course
7. Developing Your Course
8. Adding Course Components
9. Creating and Adding Video Content
10. Adding Exercises and Tools
11. Adding Course Assets
11.1. Adding Files to a Course
11.2. Adding Course Updates and Handouts
11.3. Managing the Pages in Your Course

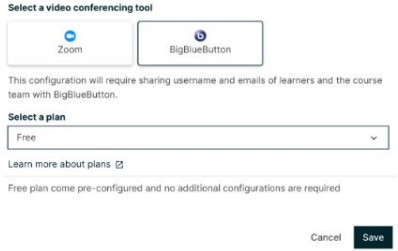
11.6.2.2. Big Blue Button setup

Big blue button can be used to create virtual classrooms for a course.

Instructors can use the big blue button to schedule and start meetings and students can see and join these meetings to attend classes. Learn more about the app on Big Blue button site.

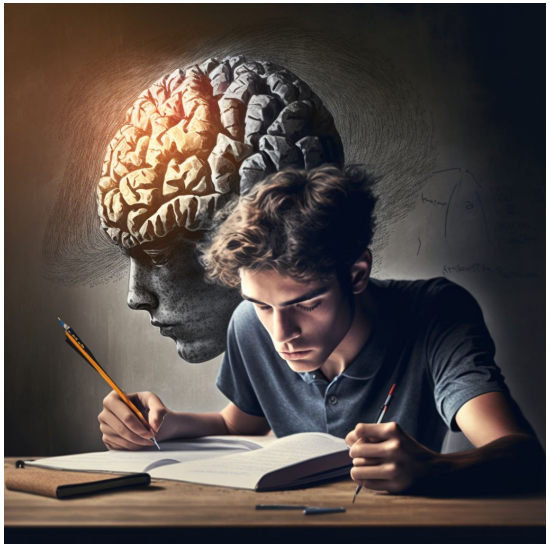
Configuration options for BBB are presented below:

1. **Free tier**: You can use BBB for free with certain limitations. See this document to learn more about the free tier. To configure, select the *Free* option in *Select a plan* dropdown menu and click *Save*. No further configuration is required.

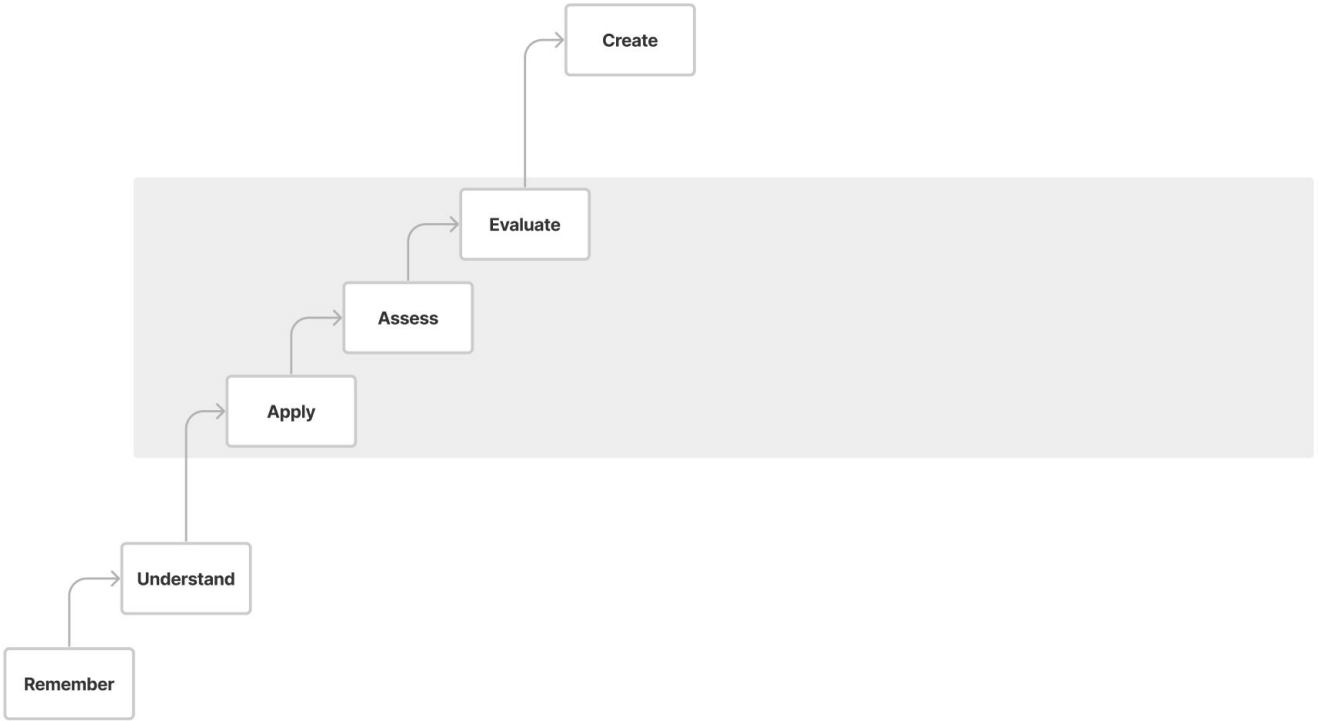


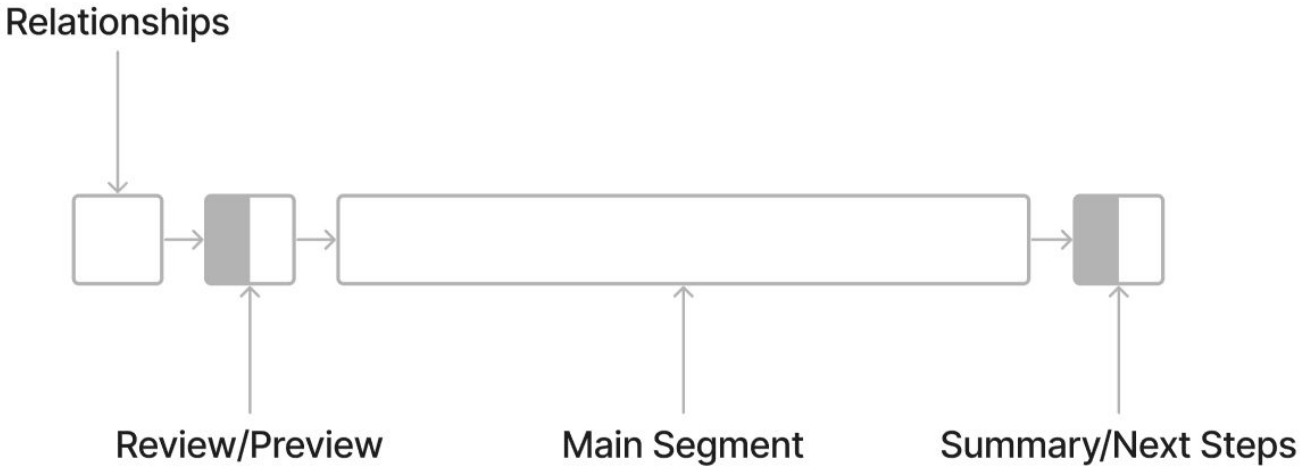
1. **Commercial/self-hosted**: You can deploy BBB on your own server or use third-party hosting providers. Please find more information on features available in commercial tier in this document. You can use the services listed on this link. These services provide complete BBB deployment and support. Once you have obtained LTI credentials for BBB from your own deployment or via a third-party provider, select the *Commercial/self-hosted* option in *Select a plan* dropdown menu, add LTI credentials in respective input fields and click *Save*.

Contents
11.6.1. Enable or disable course live app
11.6.2. Provider specific configuration
11.6.2.1. Zoom setup
11.6.2.2. Big Blue Button setup

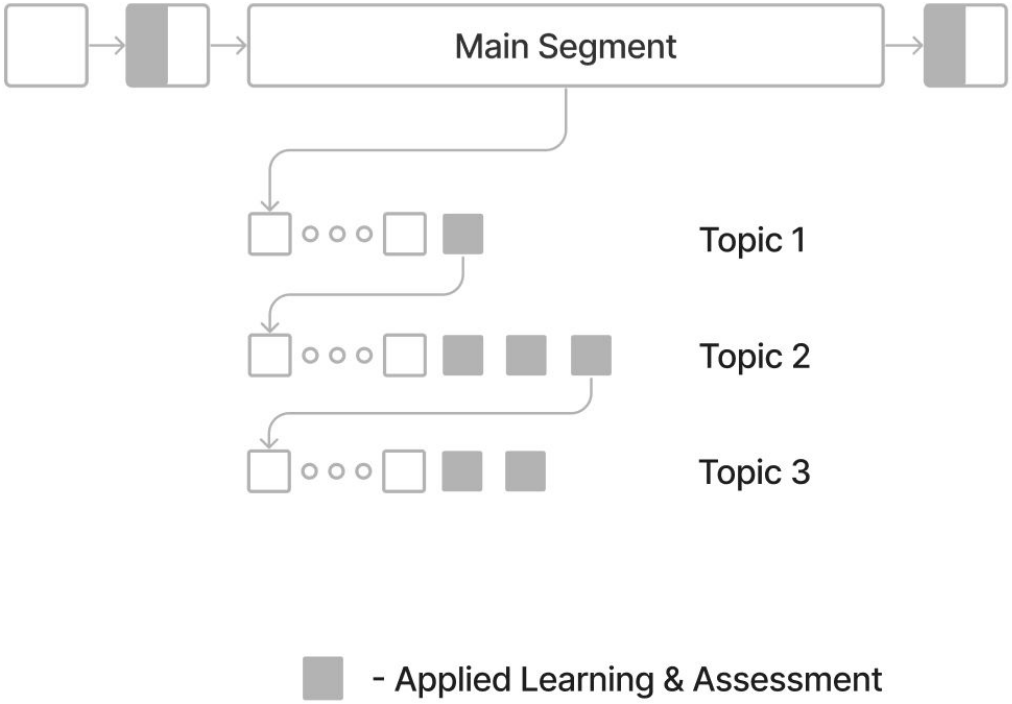


Pedagogical Foundations

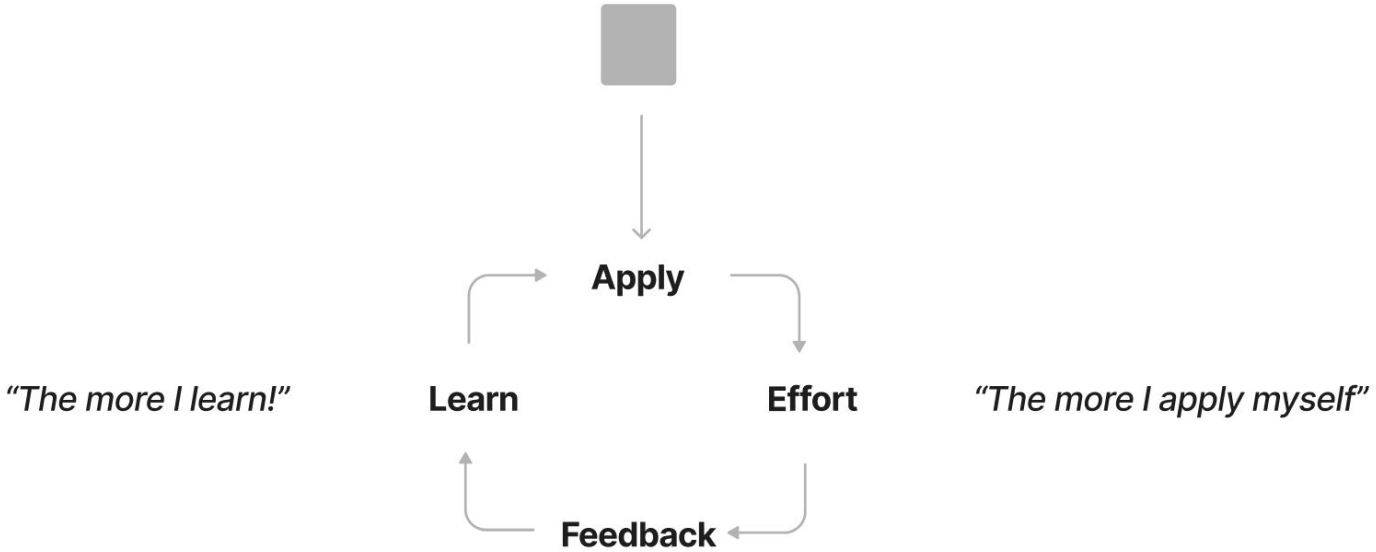

Create
Evaluate
Assess
Apply
Understand
Remember


Relationships
Review/Preview
Main Segment
Summary/Next Steps

Applied Learning & Assessment

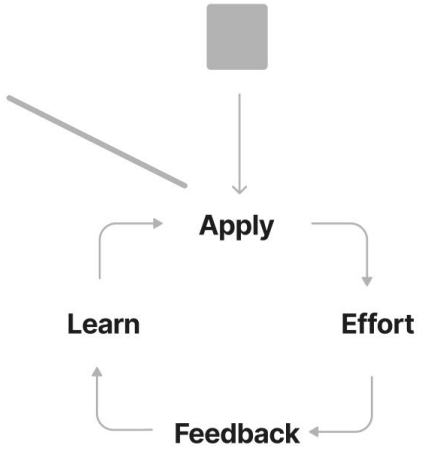


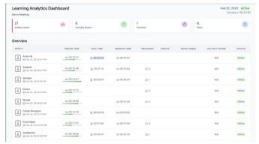
The Virtuous Cycle of Applied Learning



How BigBlueButton helps

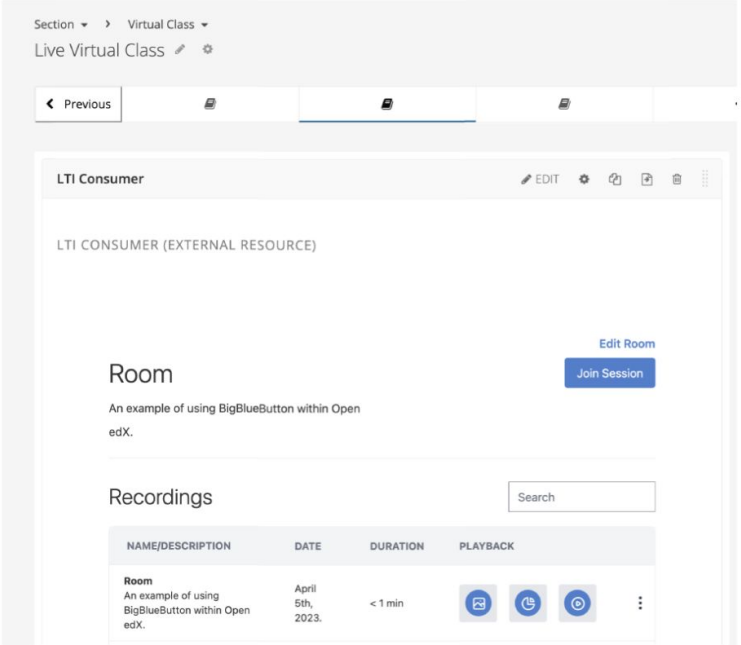
Emojis
Polling
Share external video
Multi-user whiteboard
Shared Notes
Breakout rooms
Visual Assessment





Live Analytics pin-points students that are struggling & give feedback.

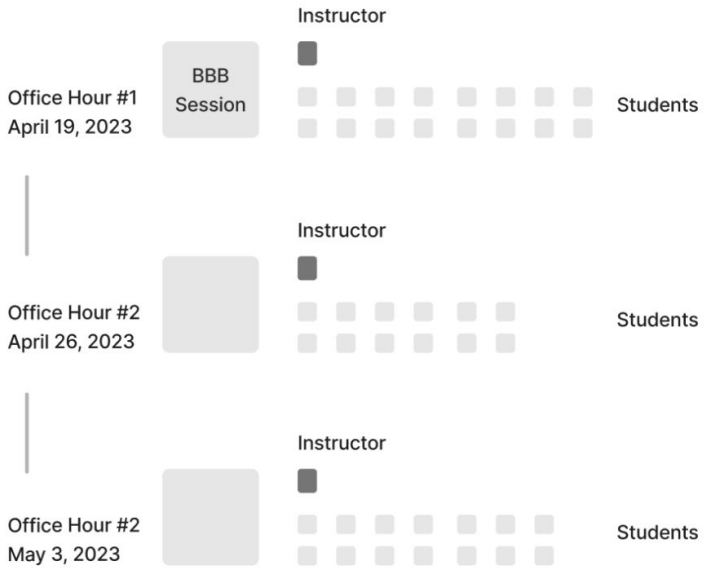
What is possible with the integration?

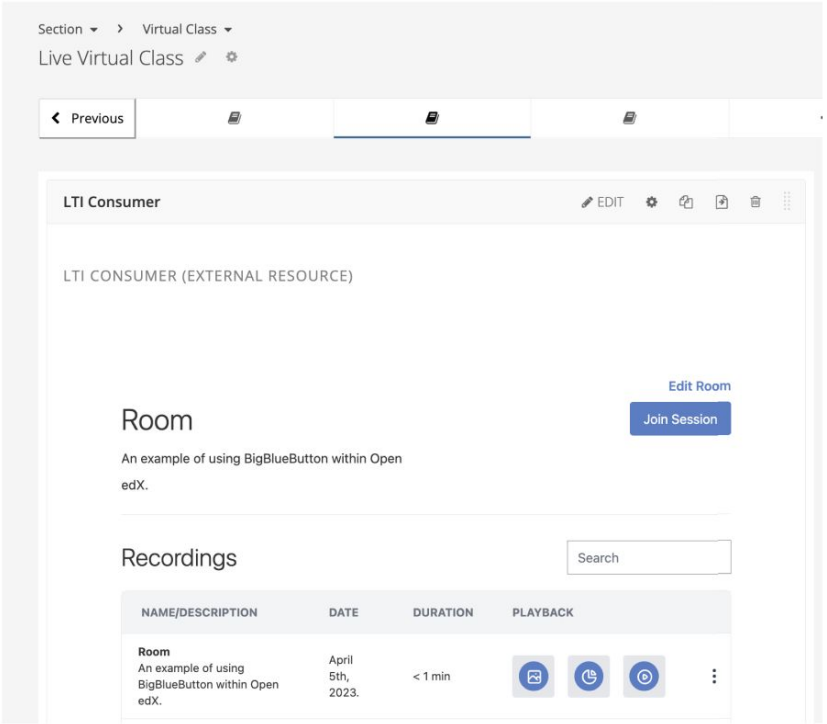


Today: Classes/Office Hours

Each week there are synchronous office hours available to help students succeed.

Measurement: Increased number of students finish the course (same for next two).

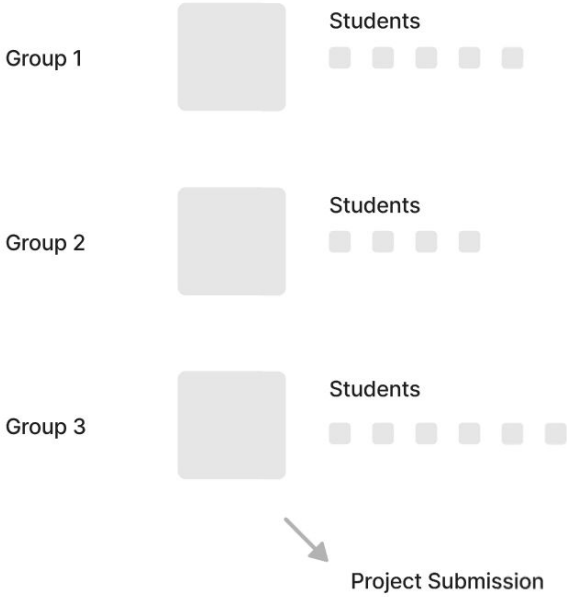


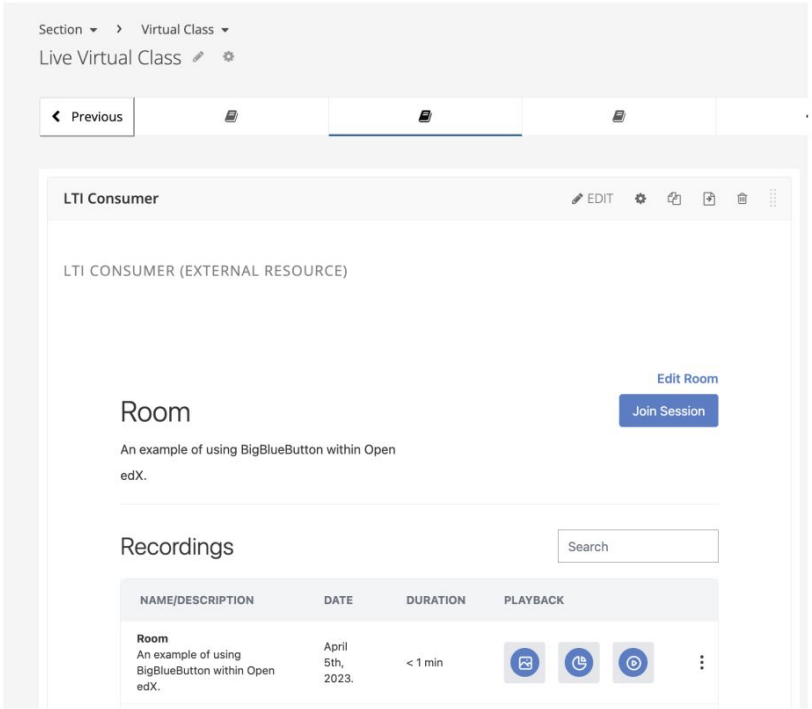


Scenario 2: Group Projects

Students are assigned to groups with a project deliverable as part of the course. They meet throughout the course.

Measurement: Time collaborating together and submission of project.

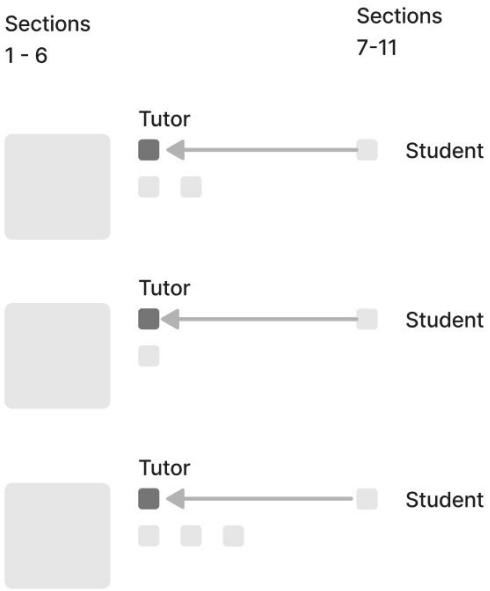




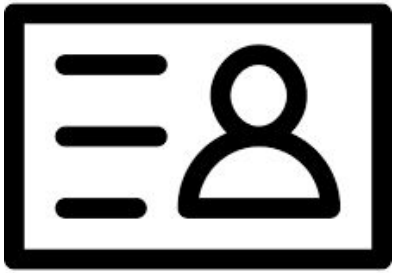
Scenario 3: Student Tutors

Students who have mastered later sections of the class provide tutoring sessions for students going through earlier sections.

Measurement: Hours of tutoring and feedback from students.



How do we integrate with edX?



LTI 1.1 Credentials

My Courses

Search Your Courses

BigBlueButtonX

BigBlueButtonX - BBB101

View Course

DemoX

BigBlueButtonX - DEMO101
Started - Dec 31, 2022

Resume Course

Development 101

BlindsideNetworksX - DEV101
Started - Dec 31, 2022

Resume Course

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Unit

View Live Version Preview

Add New Component

Advanced Discussion Library Content Text Open Response Problem Video

Draft (Never published)

Draft saved on **Apr 27, 2023 at 02:30 UTC** by **jfederico**

RELEASE:
Jan 01, 2023 at 00:00 UTC
with Section "Introduction"

WILL BE VISIBLE TO:
Staff and Learners
☐ Hide from learners

Note: Do not hide graded assignments after they have been released.

Publish

Discard Changes

Never published

Unit Location

LOCATION ID
a14b8f1ac41644e981560d57b0ef4927

To create a link to this unit from an HTML component in this course, enter "/jump_to_id/<location ID>" as the URL value.

Unit

View Live Version Preview

LTI Consumer

Cancel

Draft (Never published)

Draft saved on **Apr 27, 2023 at 02:30 UTC** by **jfederico**

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Unit

View Live Version Preview

Previous + New Unit Next

LTI Consumer EDIT

LTI CONSUMER (EXTERNAL RESOURCE)

Please provide launch_url. Click "Edit", and fill in the required fields.

Add New Component

Advanced | Discussion | Library Content | Text | Open Response | Problem | Video

Draft (Never published)

Draft saved on Apr 27, 2023 at 02:31 UTC by jfederico

RELEASE:
Jan 01, 2023 at 00:00 UTC
with Section "Introduction"

WILL BE VISIBLE TO:
Staff and Learners
☐ Hide from learners

Note: Do not hide graded assignments after they have been released.

Publish

Discard Changes

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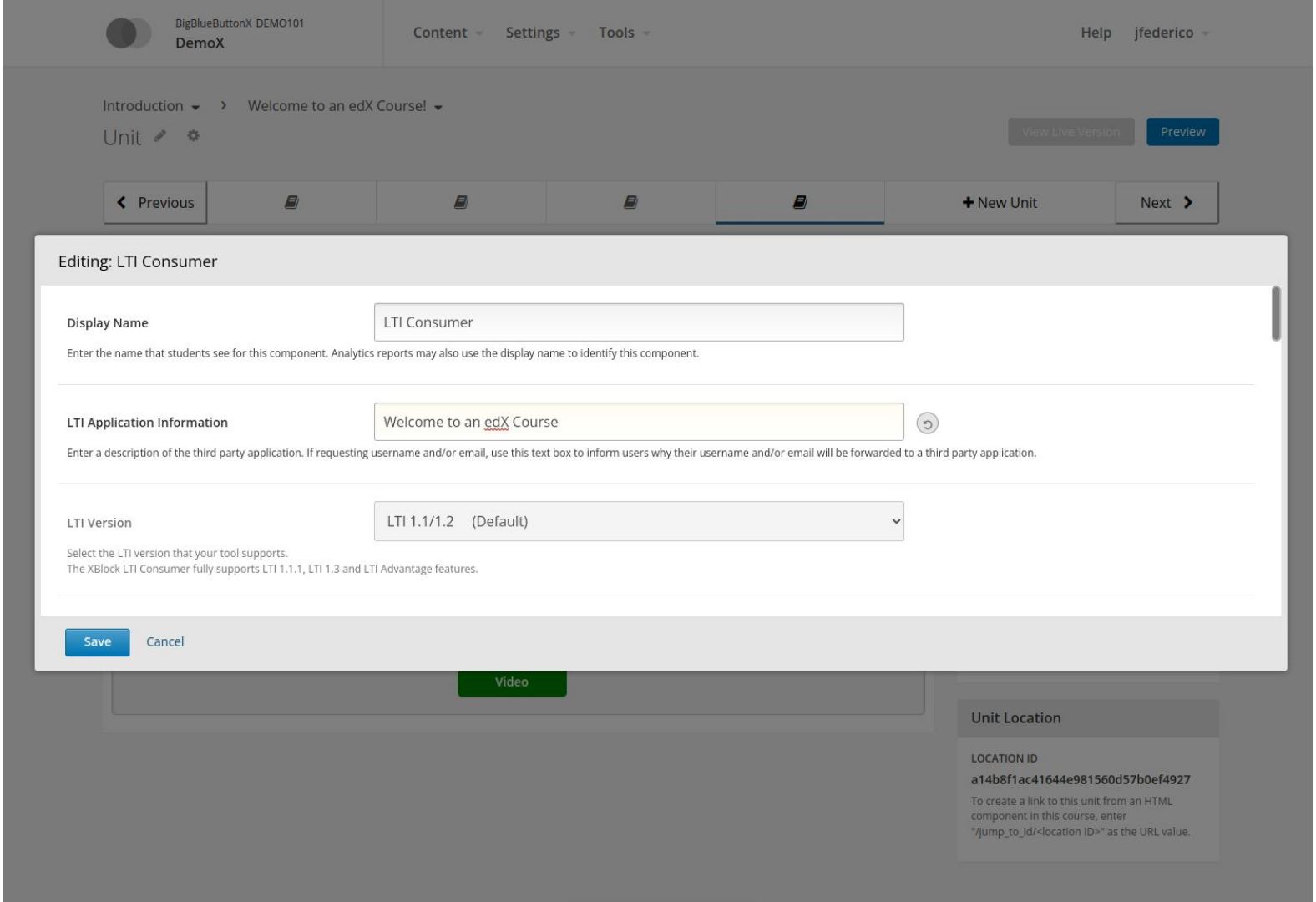
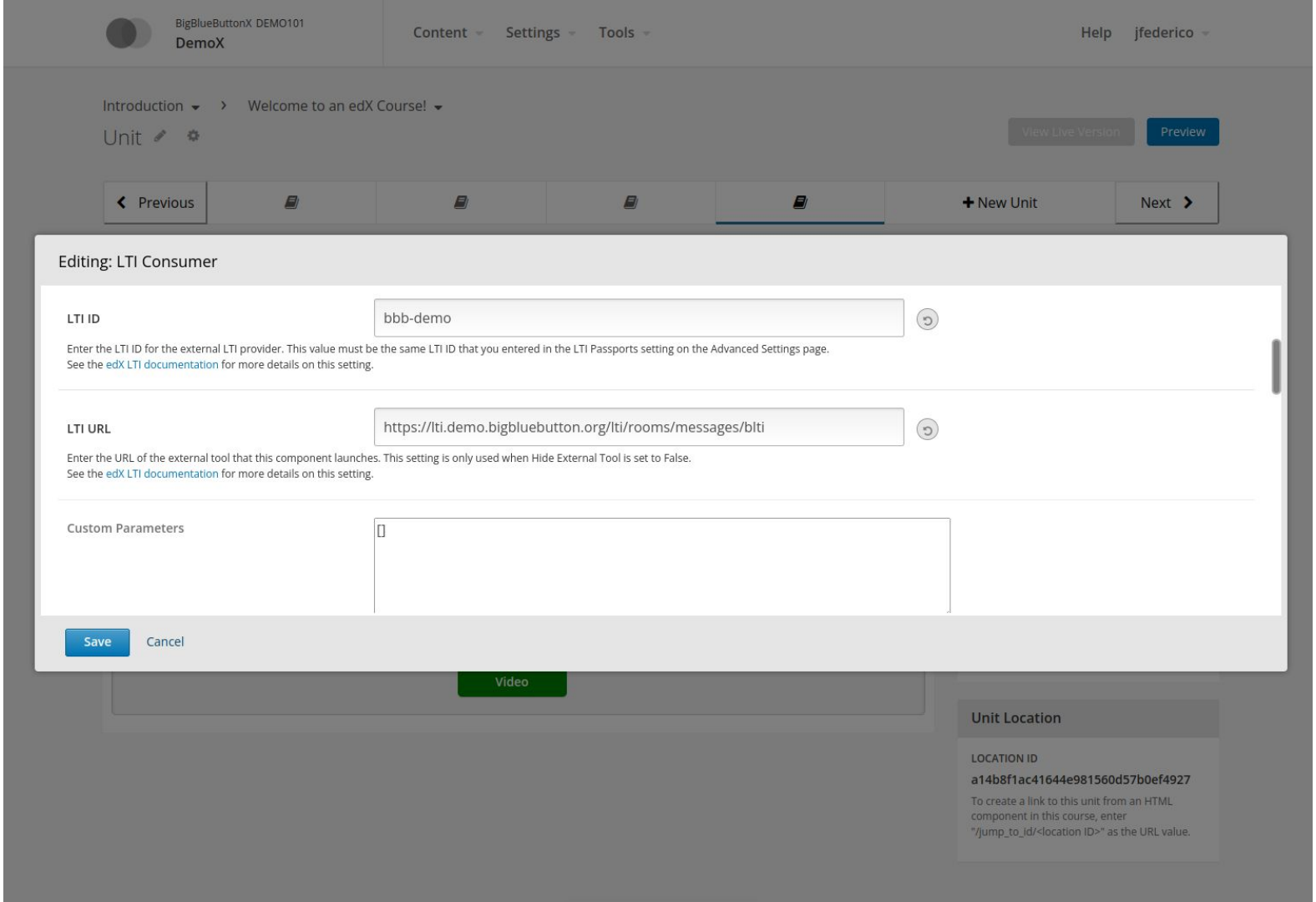

BigBlueButtonX DEMO101
DemoX
Content
Settings
Tools
Help
jfederico
Introduction
Welcome to an edX Course!
Unit
View Live Version
Preview
Previous
+ New Unit
Next
Editing: LTI Consumer
Display Name
LTI Consumer
Enter the name that students see for this component. Analytics reports may also use the display name to identify this component.
LTI Application Information
Welcome to an edX Course
Enter a description of the third party application. If requesting username and/or email, use this text box to inform users why their username and/or email will be forwarded to a third party application.
LTI Version
LTI 1.1/1.2 (Default)
Select the LTI version that your tool supports.
The XBlock LTI Consumer fully supports LTI 1.1.1, LTI 1.3 and LTI Advantage features.
Save
Cancel
Video
Unit Location
LOCATION ID
a14b8f1ac41644e981560d57b0ef4927
To create a link to this unit from an HTML component in this course, enter "/jump_to_id/<location ID>" as the URL value.


BigBlueButtonX DEMO101
DemoX
Content
Settings
Tools
Help
jfederico
Introduction
Welcome to an edX Course!
Unit
View Live Version
Preview
Previous
+ New Unit
Next
Editing: LTI Consumer
LTI ID
bbb-demo
Enter the LTI ID for the external LTI provider. This value must be the same LTI ID that you entered in the LTI Passports setting on the Advanced Settings page.
See the edX LTI documentation for more details on this setting.
LTI URL
https://lti.demo.bigbluebutton.org/lti/rooms/messages/blti
Enter the URL of the external tool that this component launches. This setting is only used when Hide External Tool is set to False.
See the edX LTI documentation for more details on this setting.
Custom Parameters
[]
Save
Cancel
Video
Unit Location
LOCATION ID
a14b8f1ac41644e981560d57b0ef4927
To create a link to this unit from an HTML component in this course, enter "/jump_to_id/<location ID>" as the URL value.

Grettings from OpenEdX 2023

Bookmark this page

LTI Consumer (External resource)

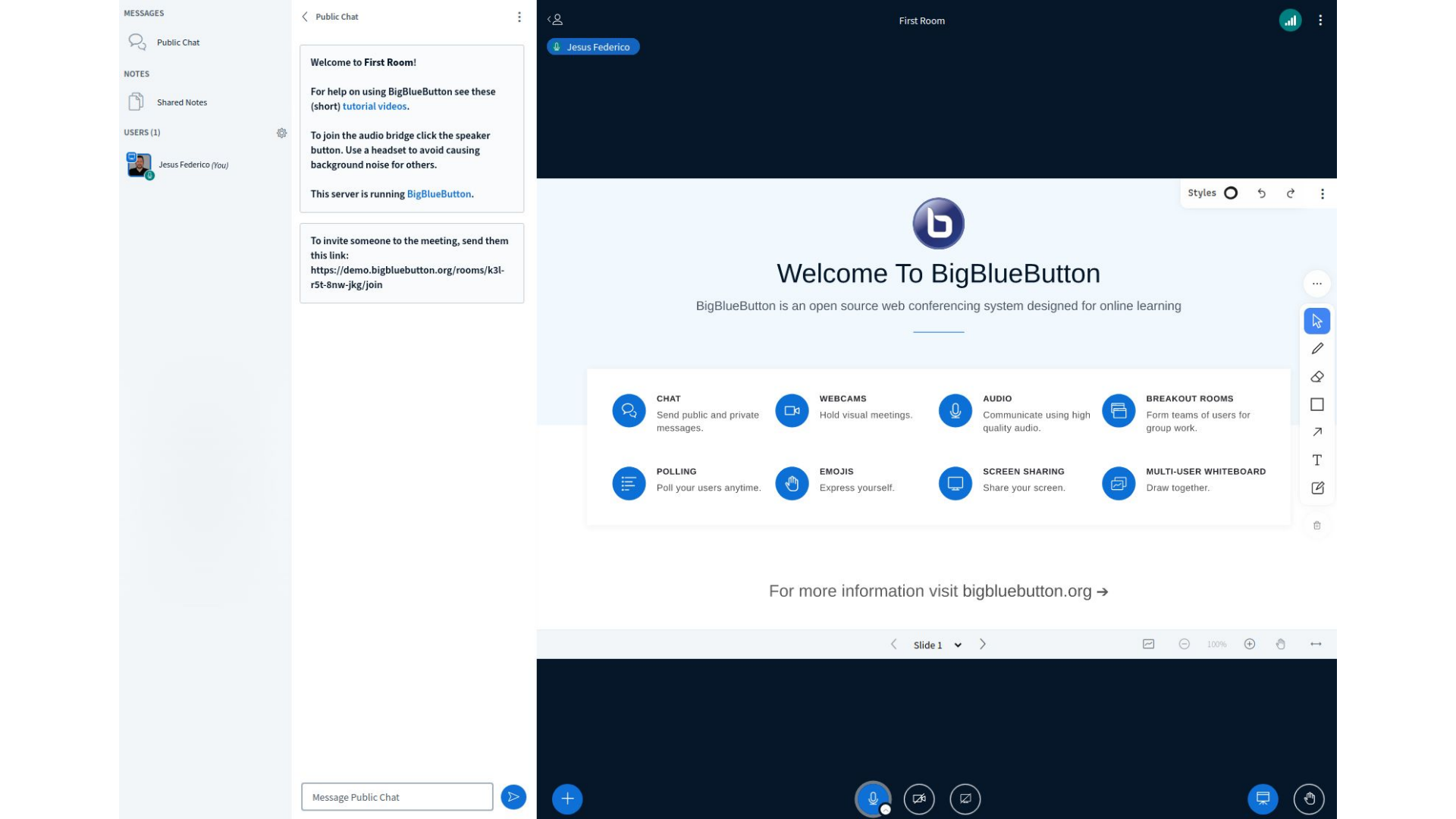
Edit Room

Join Session

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

Build number release-1.1.1.

STAFF DEBUG INFO


MESSAGES
Public Chat
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Message Public Chat
First Room
Jesus Federico
Styles
Welcome To BigBlueButton
BigBlueButton is an open source web conferencing system designed for online learning
CHAT
Send public and private messages.
WEBCAMS
Hold visual meetings.
AUDIO
Communicate using high quality audio.
BREAKOUT ROOMS
Form teams of users for group work.
POLLING
Poll your users anytime.
EMOJIS
Express yourself.
SCREEN SHARING
Share your screen.
MULTI-USER WHITEBOARD
Draw together.
For more information visit bigbluebutton.org
Slide 1
100%

Grettings from OpenEdX 2023

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Build number release-1.1.1.

STAFF DEBUG INFO

Grettings from OpenEdX 2023

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LTI Consumer (External resource)

Name *Required

Greetings Room

Hide name

Description

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

STAFF DEBUG INFO

Grettings from OpenEdX 2023

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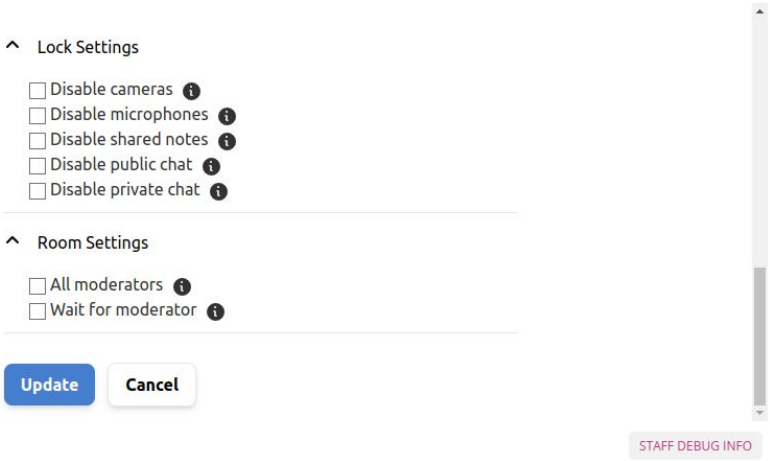
LTI Consumer (External resource)



STAFF DEBUG INFO

B3 Rooms By Blindside Networks

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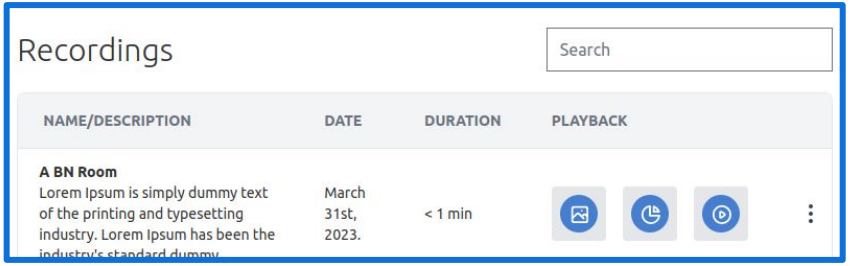
LTI Consumer (External resource)

Join Session

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.



B3 Lectures By Blindside Networks

Bookmark this page

LTI Consumer (External resource)

This session has ended

Edit Lecture

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

A BN Lecture Lorem Ipsum is simply dummy tex...	March 28th, 2023.	< 1 min	

B3 Lectures By Blindside Networks

Bookmark this page

LTI Consumer (External resource)

Welcome

Lock Settings

Lecture Settings

Session Timing

Open 2023-03-31 12:10 PM

Close 2023-03-31 17:00 PM

Update Cancel

B3 Lectures By Blindside Networks

Bookmark this page

LTI Consumer (External resource)

The session is unscheduled

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

B3 Lectures By Blindside Networks

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LTI Consumer (External resource)

This session is scheduled to start on April 26, 2023 11:00pm

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

B3 Lectures By Blindside Networks

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LTI Consumer (External resource)

This session is currently in progress

Join Session

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

B3 Lectures By Blindside Networks

Bookmark this page

LTI Consumer (External resource)

This session has ended

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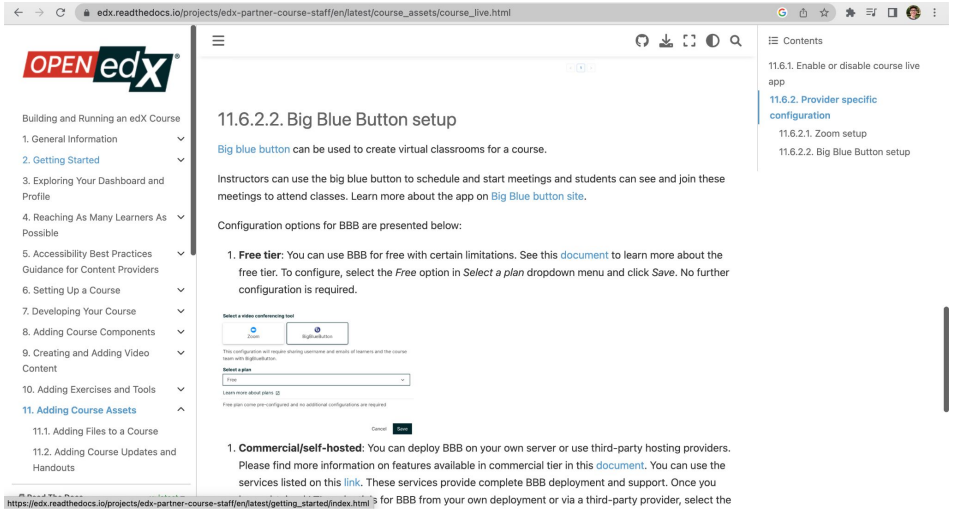
A BN Lecture Lorem Ipsum is simply dummy tex...	March 28th, 2023.	< 1 min	

The edX

Worked closely with AppSembler and Abstract Technology

Now integrated into edX as a default options.

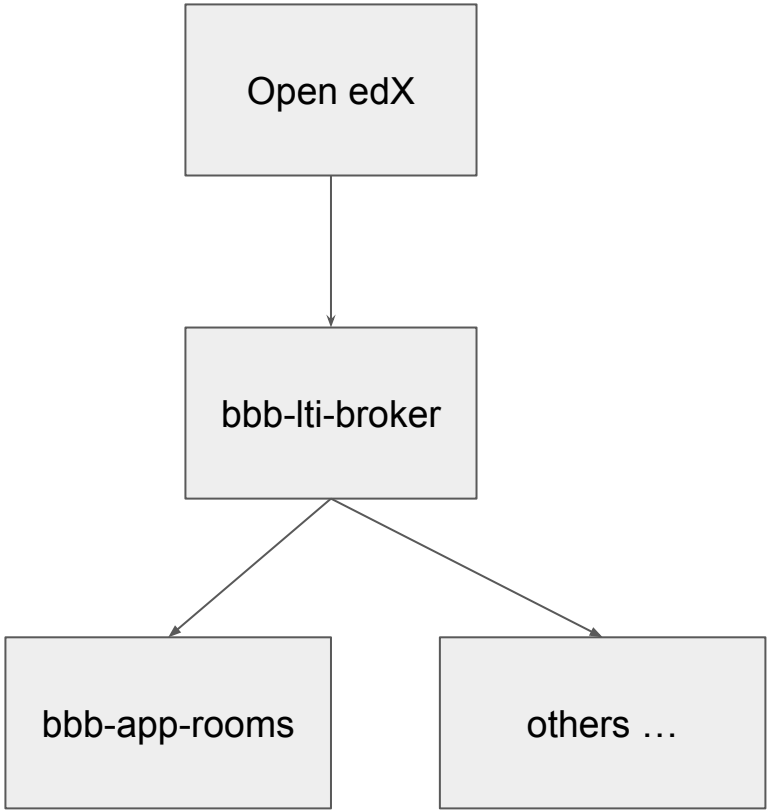


Architecture

We created a modular integration with LTI.

The bbb-lti-broker handles the authentication and LTI launch from the consumer.

The broker can then send the user to one (or more) applications that render within Open edX.



The future of the integration

Roadmap

- **Lectures App**. Add scheduling and changes the user experience when it is enabled *(Currently offered by BN as a beta)*
- **Completion**. Report outcomes for for completion based on analytics callback
- **Attendance report**.
- **Pre-uploaded presentation**. Allows uploading slides before the meeting has started. Users can have access to download the slides when Lecture mode is enabled
- **LTI 1.3 (Registration, Launch, Deep Link)**. Add support of LTI 1.3.
- **Preset configuration**. The behaviour of the Tool can be defined by settings
- **Preset configuration applied to multi-tenancy**. Each tenant should have its own settings
- **Recordings App.** Allows to search for recordings and link them as resources
- **Multi-experience pad for Rooms**. Since the same tool can support multiple modes or experiences, add a pad to be shown on first launch.
- **Launch pad to support multiple apps**. Since the broker can support multiple Tools, add a launch pad to allow selecting the tool to be linked to the LTI link on first launch.
- **UI for managing resources** (Apps, Tenants, Configuration, LTI 1.0&1.1 keys, LTI 1.3 registrations and tools)

We are interested in your ideas!

How you you get started?

Contact us!

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