

Compendium of Augmented Blended Teaching & Learning for Open Pedagogic Tools

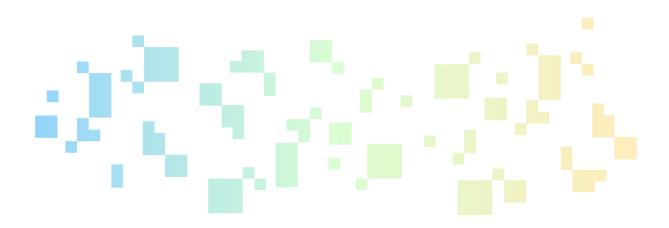
Blended Learning Tool Evaluation - Kaltura

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Report Overview

This document describes Kaltura as a tool to support blended learning. Following testing and evaluation, it discusses the functionalities and how the tool supports educators in their professional activities, namely:

- Professional Engagement
- Digital Resources
- Teaching & Learning
- Assessment
- Empowerment of Learners
- Facilitating Learners' Digital Competence







1. Introduction

Kaltura is a New York-based software company founded in 2006. Kaltura operates in four major markets: Cloud TV (that is, OTT) for operators and media companies, online video platform (OVP) offered mostly to media companies and brands looking to distribute content or monetize it, Education Video Platform (EdVP) offered to educational institutions, and Enterprise Video Platform (EVP) for collaboration, communications, and marketing. Kaltura provides live and on-demand video SaaS solutions to thousands of organizations around the world, engaging hundreds of millions of viewers at home, at work, and at school.

Video drives student engagement, interactive learning experiences and better learning outcomes.

Kaltura Video Cloud Platform for Education is a single platform purposefully built to power real-time, live and VOD experiences for online programs and virtual learning. The Kaltura Video Platform for Education includes a range of products for virtual classrooms, lecture capture, webinars & live events, and student outreach — all designed to create engaging, personalized, and accessible experiences on campus and beyond. For more than a decade, Kaltura has been the leading video platform for educational institutions, serving hundreds of schools worldwide, including 15 of the top 20 US universities. Kaltura's open standard platform allows students and staff to create and manage video that can be used in any platform for any purpose across campus.

The most reliable, flexible, and comprehensive webinar solution for entrepreneurs and enterprises alike. Kaltura is a market leader and expert in the field of video-based online communication solutions. Kaltura Webinars brings all this technology and know-how together in a powerful cloud-based platform to connect with your audience in a reliable and impactful way.

Kaltura is a professional-grade solution that will help you create engaging webinars with the highest reliability, flexibility, and brand visibility.

Best practices:

Virtual Classroom - Branded persistent rooms with advanced moderation controls, collaborative tools like whiteboard, screen share, content management playlist, breakout rooms, interactive live quizzing and HD video sharing.

Lecture Capture - Live stream and record any class on campus with Kaltura Lecture Capture, compatible with any lecture capture hardware. Schedule in advance or capture on the fly, and automatically publish to your LMS/VLE.

LMS / VLE Integrations - Create course video galleries, video assignments, and enjoy video creation tools, seamlessly integrated into the familiar LMS/VLE environments with gradebook integration and accessibility.

Webinars & Townhalls - Broadcast every event of any size, from athletics to guest lectures and presidential addresses. Quickly and easily create new live events and stream to an unlimited audience. **Video Portal** - Branded media hub for sharing videos, class recordings and live events, securely and at scale, with search, auto transcription, video creation, editing and interactive tools.





Video Messages - Send personalized video messages via email to prospective students, alumni, or colleagues across campus and grab your recipients' attention, track viewership in real-time and truly connect.

Main features:

- Persistent and branded rooms
- Live quizzes and polls
- Content library and playlists
- Breakout rooms
- Seamless video playback
- SSO-based user permissions management
- Live captioning
- Screen sharing
- Digital whiteboard
- Full moderator and chat controls
- Simulive
- Feature-packed live-to-VOD conversion
- Performance analytics
- Session recording

2. Testing and evaluation of the tool

The many advantages that online learning holds over traditional face-to-face are well documented. Online learning is more flexible, more inclusive, and can be more effective if well organised and personalised. It fosters self-learning and presents a lower cost than traditional learning, per learner as it allows scalability. In the last almost 2 years, the global situation led online learning into acceleration. But the disadvantages also quickly became apparent during the 2020-21 pandemic. Learning from a screen made many students feel isolated, left behind, unmotivated, and detached from the classroom environment. The many distractions in the student's home environment make it tricky to stay focused.

Based on this observation, our team started to enquire about how to make blended and online learning more engaging for students, sharing with the education experts and many other teachers around the world, examples of virtual classroom ideas for fun activities that increase engagement, testing different platforms and formulating guidelines.

As a conclusion, video conferencing tools, in our case Kaltura, took a central role in facilitating these hybrid or online classrooms.

It has been tested and used as a tool for:

- more engaging hybrid classrooms,
- communicate with colleagues remotely
- online lessons,
- exercise and tutoring activities,







- exams (through audio and video functionalities),
- internal meetings between educators and/or students,
- external meetings between project partners.

In the testing activity we used the following ideas, in order to encourage blended learning.

- a. Prepare a strategy: We all know that blended learning is a relatively new method and will go through a trial-and-error phase, but a proper strategy is still necessary. We've all had some time to adjust to the new situation, and educators need to map their expectations and goals, but also match them with the right tools. It may also help to keep in mind that blended learning will continue to be relevant after the pandemic is over, giving teachers and students more choice between the different options rather than forcing specific requirements based on the traditional curricula.
- b. *Try something different than traditional classrooms:* We know that the easiest way for everyone with a particular methodology is to find a tool that just creates an online version of what they already know. In this testing activity, we tried to outline that blended learning can be actually more beneficial than the traditional learning, and more accessible, maximizing the technology's capabilities without trying to create a virtual version of typical classrooms.
- c. Enhance flexibility: As we've mentioned, hybrid classrooms bring together multiple learning methods for students to choose from, creating a more personal experience that fits individual needs. Offering different versions of similar tasks will allow students to connect with the topic on their own terms. Incorporating interactive features can also help, as it turns rigid methodologies into gamified, entertaining ones. Online questionnaires can boost engagement rates when teachers are losing students' attention. If students struggle with a topic, they can approach it repeatedly from different angles and improve over time.
- d. Teach new media skills: If online and blended learning teach the educators something new, it's that the world, including teaching, is going more digital day by day.
 With this testing activity, we used the opportunity to teach the less technology-skilled students new skills by giving video assignments that can be shared with the class.
- e. *Use the user analytics in our advantage:* We checked the data insights from our hybrid classroom, and learned which content is more engaging, what helped struggling students understand complex topics, and what we tried to improve our strategy based on these insights.

Regardless of whether all educators nowadays plan to move to a blended learning or not, it's important to embrace video as a tool for the classroom. Students relate to video. They understand video. Whether they're learning how to build something on YouTube or having fun with the latest trends on TikTok, video plays a central role in their lives. And, video will continue to play a role in their professional development as more companies rely on video in all facets of their operations from learning and development to marketing and customer enablement.

3. Functionalities supporting blended learning





The nature of Kaltura encourages the development of educators' professional activities and qualities such as integrity, respect, collaboration, and communication. It also promotes the sharing of best practices, knowledge improvement, and digital skills detection, based on high hopes for a 100% blended learning in the future.

Kaltura' functionalities to support educators' activities are described organized under the following sub-headings:

- Supporting Professional Engagement
- Digital Resources
- Teaching & Learning
- Assessment
- Empowerment of Learners
- Learners' Digital Competence

Kaltura Video Cloud Platform for Education Product Suite



Figure 1. Kaltura features (Kaltura.com)

3.1. Supporting Professional Engagement

Kaltura platform supports professional Engagement involved in the activities of educators and students by bringing together the best online and hybrid classroom features in a single workspace. Kaltura provides solutions for a customized, user-friendly, and integrated learning experience. Here several features of Kaltura supporting professional engagement are described.

Integrated with Your LMS/VLE - Kaltura integrates with all major Learning Management Systems/Video Learning Environments, (Moodle, Canvas, D2L, Blackboard, Sakai) so you can seamlessly add video to the tools your users depend on.



Figure 2. Examples of Learning Management Systems





Open, Flexible, Customizable - With its open APIs-based architecture Kaltura offers the ultimate in customization and flexibility. Kaltura is a leader in supporting and driving market-wide adoption of Open Standards including Open Capture and Learning Analytics (LTI 1.3, LTI Advantage, xAPI, Caliper).

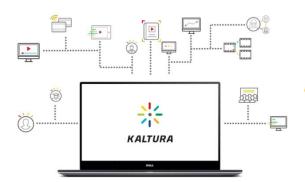


Figure 3. Example of APIs-based architecture Kaltura

Accessible by Design - Kaltura products adhere to 508, CVAA, and WCAG 2.0 AA accessibility standards with workflows and tools such as transcription, translation, audio description, automatic chaptering, and much more for greater inclusion.



Figure 4. Example of Kaltura Granular analytics

Advanced Learning Analytics - Granular analytics on viewership with user—level heatmaps, insights on engagement, comparative analysis, and support for xAPI and Caliper Analytics that provide a window on learner behavior.

Lean Forward Video Experiences - A suite of tools to create, embed and share immersive personalized video experiences for greater engagement and learning including interactive playback experience, interactive video paths, video quizzes, chapters, and hotspots.

Purpose Built for Learning - Kaltura Video Cloud for Education is a unified platform that supports virtual learning and communication needs – whether in a classroom, at home, in groups, or on the go – from online programs, remote learning, and live events to student outreach.









Figure 5. Example of Kaltura Video Cloud for Education

Video Management - A video portal that makes it easy for teachers to know where to upload videos and is even easier for students to find the videos they need to watch. Videos can be organized in channels that are only available for students in the class to watch while teachers can use the same video in multiple classes. Not only are videos organized by classes, but students can use rich search functions to find videos that cover specific topics. Video management portals, like the Kaltura Media Space, not only provide a central space to manage and access all videos within a class and school but also provide enrichment tools to extend the reach of videos. Teachers can automatically caption their videos with machine captioning and edit their captions to get them just right. Tools like captioning make it easy to find videos in search as well as help make sure that no student is left out.

Teachers can meet the class to kick off the lesson, then break up the class into breakout groups where students can work on their specific projects. The teacher can then jump from room to room to offer personalized instruction to each student or student group. The virtual class, as well as the breakout rooms, can be recorded, and those recordings are automatically added to the class video channel. The teacher can even share the videos via video messages to encourage students to rewatch as well as suggest other key video lectures for them to review.

3.2. Supporting Digital Resources

Fully customizable, the Kaltura Virtual Events platform provides the full range of video technology to support any event, of any size. Multi-day, live keynotes, webinars, lectures, workshops, or 1:1 chat, the Kaltura Virtual Events platform provides the full video tech stack built into the platform.

Any Event, Any Size - Support for live, simulive, real-time, and VOD from the largest keynotes to small-scale workshops and 1:1 networking sessions.

Streaming Experiences - Fast loading players, responsive design, 1080p videos, and adaptive bitrate technology.

Modular Framework for Integration - Highly extendable framework for integration with remote conferencing clients, marketing automation platforms, and analytics tools.

Robust Content Management Platform - Enterprise-grade video content management platform for ingesting, managing, publishing, distributing, and analyzing media content.







3.3. Supporting Teaching & Learning

Joining the virtual classrooms with no downloads or installations required - One click to join virtual classrooms where participants interact face-to-face from anywhere and on any device.

Preparing the class in advance - With persistent virtual classrooms, instructors can prepare their online classrooms ahead of time, customize and brand them, leave, come back, and continue where they left off.

Interactive Tools for learners - Collaborative tools like a whiteboard, quizzes, and Q&A can keep students focused and actively participating. Breakout rooms allow for smaller group interactions.

Fully managing the Classroom - Instructors can easily manage online classroom interactions with advanced moderation controls and use attention indicators to bring the focus back to the content.

Learning from anywhere and anytime - As part of the Kaltura platform, the virtual classroom is easily integrated into the learning management system (LMS). Students can quickly catch up on content they missed or review the material, directly in the LMS.

Record, Polish, Publish & Repeat - With cloud recording and automatic transcription, course content is easily accessible. Editing tools and advanced analytics allow instructors to optimize content, repurpose, and maximize engagement.

3.4. Supporting Assessment

Kaltura platform contains brandable persistent classrooms and breakout rooms that instructors can prepare in advance and save. Everyone can join the virtual classroom with a single click, no download or installation is required.

Kaltura also provides engagement features: collaborative whiteboards, screen sharing, real-time note taking, polls, and quizzes, and also collaboration and communication with full chat capabilities, moderation controls, student permission management, and a door lock feature.

Kaltura platform has also live chat, email, and Academy support channels that the educators/instructors can safely use with students. The instructor or educator can easily monitor and assess student performance with session analytics, attention indicators, and attendance information. Kaltura can be easily integrated into the Learning Management System or can be used as a standalone platform. It also offers flexibility with session recordings, automatic transcription, and a complete video editing suite with interactive features.

3.5. Supporting the Empowerment of Learners

Polls and Quizzes - Kaltura Virtual Classroom software has integrated features built-in to create quizzes. The user can create a classic multiple-choice quiz, but also mix it up and create true or false statements, odd-one-out, etc.

Think-Pair-Share (TPS) - In Think-Pair-Share activities, students receive a topic or questions and are asked to think about it, share their thoughts and ideas with classmates then share their combined work with the whole class. This activity builds the student thinking, collaboration, and communication skills, and also works well with breakout sessions.

Virtual games like the show and tell - This is a virtual twist on a great classic that gets everyone to contribute their bit to the lesson, where students have to find an image, short video, or gif that illustrates a topic or a concept, and then explain it.

Digital Escape Rooms – Kaltura virtual classroom software enables breakout rooms, so the user can make the classic activity work in a virtual setting. The user can hide the clues in the media playlists, uploaded files and folders, and the digital whiteboard of the breakout rooms.







3.6. Facilitating Learners' Digital Competence

Since many of the educators already use a lot of online tools and are familiar with using videos or media online, to use Kaltura it's not a very hard transition in providing media-rich and a mix of synchronous and asynchronous online learning.

To set up a Kaltura media portal requires resources, but the use by educators is quite straightforward and there is an abundance of tutorials available.

There are several digital competencies (EU DigComp for Educators) that are enabled by the use of Kaltura by educators and students: 2. Digital Resources (2.1 Selecting digital resources, 2.2 Creating and modifying digital resources, 2.3 Managing, protecting, and sharing digital resources) 3. Teaching and Learning (3.3 Collaborative learning, 3.4 Self-regulated learning), 5. Empowering Learners (5.3 Actively engaging learners), 6. Facilitating Learners' Digital Competence (6.1 Information and media literacy, 6.2 Digital communication & collaboration, 6.3 Digital content creation). Students are empowered and encouraged to use media-rich materials to respond to different activities, create resources, and integrate them into learning.

Summary of functionalities		
Synchronous learning	Kaltura Virtual Classroom - Interactive, on-camera online instruction Lecture Capture - record, live caption, chat, share screen & resources, digital whiteboard, breakout rooms,	
Asynchronous learning	media management platform— recordings, podcasts• Content library and playlists caption, video messages, quizz, polls, Content library and playlists students can access video and audio content easy	
Content creation	Kaltura Capture - both educators and students can create videos with quite easy-to-use tools. Educators can record lectures, demos, or video messages to integrate into course content. This can be incorporated in LMS. Students can publish video responses or create video presentations with tools that are embedded directly into the LMS, so no additional software needs to be downloaded. caption, transcribe, chapter, audio describe, or translate videos live-to-VOD conversion, performance analytics chapter, hot spots on video video paths, video quizzes	





Accessment	video quizzos (students can answer live in quizzos in video)
Assessment	video quizzes (students can answer live in quizzes in video)
	video assignment - integrated in LMS , uses assignment feature
	to allow video uploading and submission of video content
	created by students
	no direct grading or assignment is included in Kaltura, but works
	with features from LMS
Kaltura Virtual Classroom	video rooms (branded), secured, HD video sharing.
	moderation controls, whiteboard, screen share,
	content management playlist, breakout rooms,
	interactive live quizzing
Kaltura Video Portal	central hub for video creation, management, sharing, and
	collaboration
Kaltura Video Management Console	centralized video content management solution
Video Cloud for Education	bulk ingestion and upload, create transcoding profiles, manage
	metadata and categories, design and configure players, edit
	videos, view analytics, distribute content across the web,
	configure ad campaigns, control access to media, manage
	accounts, users, entitlements and permissions, search mong
	videos
	integrated in LMS
	video analytics and data (viewer behavior, content performance and delivery)

4. Tutorial Video and PowerPoint slides

The ACADIGIA resources for Blackboard are available on the website here.

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