DISCOVER VIDEO

Hybrid
Classrooms

BEST PRACTICES

**FINDING
LONG-TERM
VIDEO SOLUTIONS**

FOR

**HYBRID EDUCATION
SCHOOL SYSTEMS**

"With digital pedagogy and online education, our challenge is not to merely replace (or offer substitutes for) face-to-face instruction, but to find new and innovative ways to engage students in the practice of learning."

Jesse Stommel, Executive Director of Hybrid Pedagogy and Senior Lecturer in Digital Studies at University of Mary Washington.

WHAT IS INSIDE...

BACK TO SCHOOL

Returning to School

A Hybrid Classroom Opportunity

Returning students to schools, while maintaining social distancing to protect students, teachers, and families, creates an opportunity to embrace an e-learning and in-person hybrid classroom model.

This report discusses the best practices for vetting and deploying a comprehensive in-school and remote learning video management system. It demonstrates how such a platform would ease the transition to a hybrid model and support its effectiveness.

Supporting Flexible Classrooms

Corona virus-induced school closures gave most teachers days to transition to online learning. As the COVID-19 pandemic abruptly shuttered schools, students, teachers, parents, and support staff made a valiant effort to quickly adapt to a virtual education process. It was not online education, but "emergency remote teaching."

Nothing can replace being in the classroom together, but the right video platform can help design engaging online and blended courses to establish effective hybrid classroom pedagogy.

This paper will help you to identify the functions, features, and applications needed in a video platform to create the most flexible e-learning and hybrid classroom scenarios for your school system.

The Hybrid Model

Now that students of all ages have experienced a taste of distance learning, online classes, and self-directed education, there is no going back to "traditional"schooling.

It's a given that video will be central to the new model. But just like differences in teaching techniques and results in the regular classroom, this video model needs to be flexible enough to meet many variables. Synchronous live video conferencing may work well for some students in some subjects. Asynchronous video-on-demand may be better for others in different subjects.

The optimal solution is compatible on a variety of operating systems and portable devices, available offline, easy for teachers and students to use, and protects the privacy and security of all the users.

Going forward, the role schools play in social, emotional, and intellectual development need to be addressed by bringing students together in a safe and productive manner. Whatever education technology is embraced, it needs to be economically feasible. It needs to change and grow with school plans, and be fully supported by the manufacturer.

As schools transition from stop-gap virtual measures to long-term distance learning and hybrid classroom models, the DiscoverVideo enterprise video platform is poised to address all of these needs.

DISCOVERVIDEO HYBRID MODEL SOLUTION

A user-friendly video platform for synchronous and asynchronous content, in a private and secure network, available on any device, accessible from any location, blending school classrooms, and remote learners.

Effective blended learning anywhere

HYFLEX

The newest term in education technology is "hyflex." It implies hybrid or blended classrooms that are the best of both in-person and e-learning. Combining synchronous interaction and asynchronous delivery allows schools the most flexibility to meet health and safety measures, and accommodate the needs of students, families, and teachers.

SYNCHRONOUS

Synchronous classes put students and teachers in the same "space" physically or virtually. Students can be with the teacher in person, or via video conferencing, in "real time." They can watch and interact simultaneously.

ASYNCHRONOUS

Asynchronous lets students stream the live lecture without interaction. Class recordings or pre-recorded lessons can be viewed on-demand, at home, school or wherever.

In-Person Classes

Video Conference or Stream to Remote Classrooms

At Home Live and On-Demand

Online Platform Options

There are many "free" and inexpensive web-based platforms that schools have used for emergency remote learning.

However, they are far from the "private and secure" atmosphere of a school building.

They often leave out the ability to easily integrate online and in-person learning into the hybrid classroom within one platform.

These software companies are generally not interested in helping schools find a comprehensive solution for the use of video in their hybrid learning pedagogy.

Conducting online classes with the same portal as your video library and student assessment can support teaching effectiveness by easing technology frustrations.

One Platform =
Less Technology Stress

HAVING A SINGLE PORTAL FOR EVERY VIDEO FUNCTION MAKES A DISTANCE LEARNING PLATFORM USER-FRIENDLY. WHEN AN EASY INTERFACE IS LEARNED ONCE, TECHNOLOGY FRUSTRATION DISSIPATES AND THE PLATFORM BECOMES A RELIABLE AND CHERISHED TOOL.

For example, your teachers want to do live lessons, with video chat, and play a presentation. They want to record that session for those who could not make it. Many web-based video chat platforms can inexpensively fulfill that need.

But that platform may not have a library of video-on-demand lessons with statistics of who has watched. If questions need to be embedded, or custom closed captioning added, more production time or another application may be needed. Keeping track of student progress, and creating non-video tests and quizzes, may be yet another portal.

Your new video management portal should be able to show students how they are doing with easy access to the materials they need to excel.

THE IDEAL SINGLE-SIGN-ON HYBRID VIDEO PORTAL

» **Streams and records live video conferencing to multiple viewers.**

» **Simultaneously plays presentations.**

» **Simultaneously hosts video chat.**

» **Streams to other channels or at different bit rates.**

» **Stores all the video in one on-demand library organized by channel.**

» **Enables assessment questions embedded in recorded content.**

» **Automatically adds closed captioning.**

» **Gathers statistics and gives reports on viewing and comprehension.**

» **Easily integrates with student portals like Blackboard & Classlink.**

» **Accommodates flexibility of system size and function.**

» **Gives privacy and security to the network and all users.**

» **Economical and fairly priced.**

» **Provides excellent personalized technical support.**

Platform Standards

1. Flexible & Scalable

The ideal distance learning platform is flexible to student and teacher locations. It should also be scalable to the size of your district's facilities, and the wider community. It needs to host an online class of 20 easily and flawlessly, AND, just as easily, broadcast live and virtual events to a broader external audience.

Your distance learning platform needs to accommodate an educational emergency, be of use when all or some students return to the classroom, and have the flexibility to flip your classrooms, with lessons at home and guided homework at school.

Additionally, a system that can stream and serve video throughout all your buildings, via the Internet, is beneficial for the long-term. That includes sending lessons to half the class in another room or at home, for broadcasting graduations and special live and virtual events, bringing content to digital signage, sharing live video morning announcements, and video and SMS alert messages.

2. Economical

A subscription per user is easy math, but it may not be the right formula. Remember to add up the multiple subscriptions that are fashioned together to make a comprehensive distance learning experience.

The most equitable streaming distance learning platform will be all-inclusive, and charge you based on bandwidth and storage, not by user. Using software to create an on-premise server, can save on Internet usage fees, give better in-house control, enhance in-network video speed, and easily serve in-school and remote learners.

3. Private & Secure

The price schools pay for inexpensive services comes in the form giving up the anonymity of your teachers and students, and the data mining your information to sell advertising. If security is set up improperly, lessons are disrupted with inappropriate and offensive content.

The streaming video platform you want to use is the one that is truly "end-to-end" secure and is only in the business of serving your video stream.

It should have single-sign-on and an Active Directory to assign administrators and individual user permissions.

You should have the option to have your server "in the cloud," on your premises, or a hybrid of both.

4. Compatible & Supported

Compatibility and tech support is often overlooked as deciding factors of implementing new technology. Most schools have their own IT or multimedia departments that can be a little territorial about their network and methodologies.

The ideal distance learning and hybrid education platform needs to "play well with others," meaning hardware, software, and people, without special accommodations, configurations, lengthy training sessions, or stepping on any toes.

Additionally, the availability and responsiveness of the manufacturer to a question, problem, or suggestion, should be given as much weight as price and functionality in deciding which platform to use.

Technology Needs

TECHNOLOGY

The Technology of a Hybrid Classroom

Social distancing recommends that students and teachers be at least 6 feet from each other as much as possible. That means that a portion of students will be accessing their classes from a remote location, in real-time or on-demand.

That remote location can be in a school building, the student's home, or wherever. There are also likely to be instructors and students who prefer to stay in quarantine, and they need to be given the right tools for effective online learning.

To stream and/or video conference the teacher needs the simplest setup of a webcam and a free video conference account.

But for the school that is investing in the hybrid model for the long-term, to have a private library of instructor-created and monitored on-demand content for any user, a more robust platform is needed.

CAPTURE

Picture, Light & Sound

Capture HD video and clear audio with a webcam, camera, or camcorder.

For the best production value, light the instructor with an LED light ring.

For the highest quality sound use a microphone on a stand or a wireless body mic or headset.

Video Production Tools

Once you have your inputs of camera, mic, and presentation device, and an appropriate broadcasting space, you need an encoder and a video server. What's an encoder and how do you pick one?

Simply put, an encoder compresses and transforms the video stream code to smaller data packets so it can travel as fast as possible, to keep the audio and video in sync, and maintain picture quality. The server sends the live or recorded stream to whatever device requests it.

Shopping List for Broadcasting

ENCODE

STREAM

Choose Your Hardware

Purchase an HD quality video encoder appliance.

OR

Use a computer with a processor capable of running an open source streaming software encoder like DiscoverVideo's Streamsie or OBS (Open Broadcaster Software).

NOTE: Encoders are not necessary for web video conferences.

Conference, Record & Serve

The stream passes through the encoder and is sent to viewers live and is recorded on the video server.

Streaming and hosting video service varies, depending on bandwidth usage, configuration, or number of users.

Servers can be on-premises or cloud-based.

DEVOS Platform

Have Your Web Conferencing & Your Classroom Support, Too

STREAM & VIDEO CONFERENCE

REAL-TIME & ON-DEMAND

DISTANCE LEARNING & HYBRID CLASSROOM WEB PORTAL

Stream, Web Conference, Record, & Playback Lessons Securely with Just an Internet Connection

SCHOOLS ACROSS THE UNITED STATES AGREE

"We absolutely LOVE DEVOS for our distance learning program. There are very few software companies that truly listen to their customer's needs. The service is excellent; they always answer the questions quickly and thoroughly. The feedback from faculty and students has been wonderful. We're so glad we chose DiscoverVideo."

» Elaine Poppell, Sr. Broadcast Technologist
University of North Florida, College of Computing, Engineering & Construction

Ease the Transition to a Hybrid Model

Teaching is hard. Online instruction is harder. Transitioning to hybrid and flipped classroom models is even more challenging.

Hybrid, blended, or flexible classrooms can have many permutations. "Splitting your classroom" could mean half the students are at home, or in another classroom. "Hybrid" might be the teacher in the classroom and the students are remote, or vice versa.

This paper has discussed how DiscoverVideo and our DEVOS video education technology system can help your school make the transition to easier.

Whatever configuration works best, the DEVOS platform can put the whole school system "in the same space," support an in-school environment, that can easily switch to remote only, AND accommodate a hybrid of both, with a minimal learning curve.

Hyflex, Blended & Flipped Classrooms

Just like they were in the classroom, instructors can interact with students in real time with live video, chat, polling, and Q&A. Include in-line presentations. Record the class and have it immediately available for on-demand. For quick and simple videos, record directly to DEVOS with just a webcam, no encoder required. Students can be graded based on how they answer the questions in the videos. DEVOS can also work with 3rd party systems like Zoom, giving the host complete audience control, and safeguarding the privacy and security of attendees.

+1MILLION

OVER A MILLION STUDENTS, TEACHERS , AND ADMINISTRATORS USE THE DEVOS ALL-IN-ONE VIDEO MANAGEMENT PLATFORM FOR ALL THEIR VIDEO COMMUNICATION, STORAGE, AND DELIVERY NEEDS.

DEVOS Features

Flexible & Scalable to Your School System

USER-FRIENDLY AND SOFTWARE AGNOSTIC, THE DEVOS PLATFORM EASILY SCALES TO YOUR SCHOOL SYSTEM'S VIDEO NEEDS.

Live Video Streaming & Video Conferencing

Live streaming isn't just for big events like graduation. Video conferencing isn't just for business meetings.

DEVOS can stream live and on-demand lessons and events, record lectures, enable collaboration and professional development, and broadcast morning announcements.

Stream from one classroom to another for social distancing. Share guest lecturers, school plays, and sporting events to the public internet, or to over flow rooms.

Once a stream has begun, viewers can watch and interact with a synchronized presentation or video conference.

Streams and recorded conference are available on-demand for students, teachers, and invited guests to review later.

Our reliable live video solutions bring classes, and the biggest events of the year, to your whole school community.

Use other DiscoverVideo products to amplify your meeting or virtual event for more viewers. Stream to multiple channels and bit rates simultaneously with one stream.

On Demand Video Content

DEVOS (Digital Enterprise Video Online System) is an end-to-end video management platform that serves as a central storage and management hub for all captured video content.

» Bring videos into the classroom and curriculum without YouTube advertising.

» Access videos from televisions, computers and mobile devices including iOS and Android without any additional software.

» Easily add questions and comments to any video.

» Convert any recorded video into a podcast for universal viewing.

» Besides being able to view via a web link, students can download lessons as podcasts to listen without an internet connection.

» Statistics and reports show instructors who viewed a video and what video they viewed, both live streams and on-demand.

» All videos can be closed captioned to meet regulations and make it easier to locate key segments. Searchable, AI-generated closed captioning is added with a single click.

Other **DEVOS** Applications

In-School, Remote & Hybrid
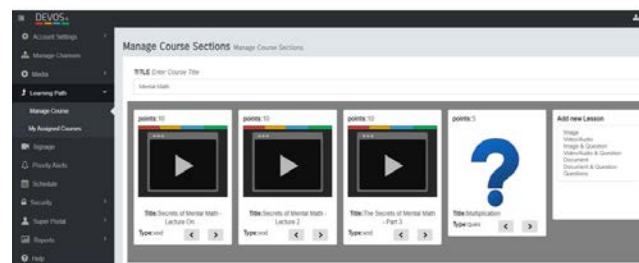
Live Video Morning Announcements

Keep your school connected and let your students shine with video morning announcements. Schedule them to go live at anytime to TVs, computers, projectors, and mobile devices. With our Streamsie software encoder your news team can broadcast from anywhere, add special effects such as image and video backgrounds, text/image overlay, and two camera production.
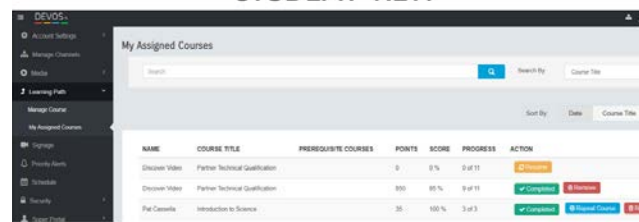
Learning Path LMS Portal

INSTRUCTOR VIEW

STUDENT VIEW

Learning Path is a video course creation and assessment tool. Content follows students and teachers throughout a school system. Record streams, video lessons with embedded questions, and supporting documents directly to DEVOS. Teachers and students can chart progress. Add YouTube videos without ads and related content. Available from anywhere on any device. Convert video lessons to podcasts. Facilitate flipped and blended classrooms. Automatically add closed captioning to video lessons.

LMS INTEGRATION & ACTIVE DIRECTORY SINGLE SIGN-ON

DEVOS easily integrates with popular student portals like Classlink and Blackboard, for single sign-on, easing technology frustrations. In addition, DEVOS can also work with your school's Active Directory.
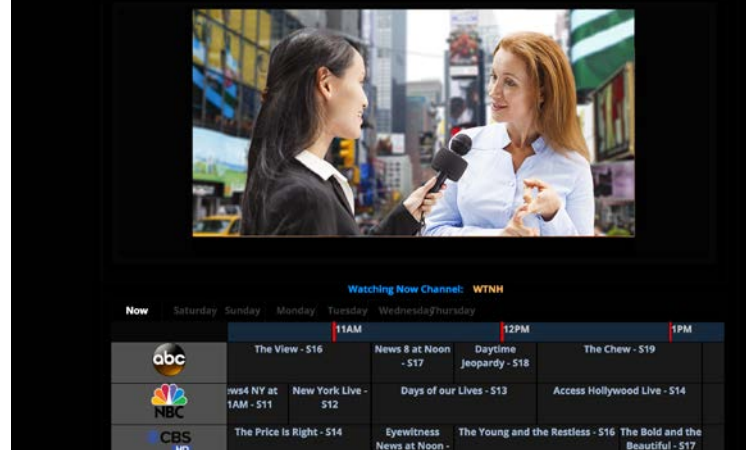
Unlimited Digital Signage

Every DEVOS system includes unlimited digital signage. Show multimedia information or deliver news to TVs in lobbies, cafeterias, and classrooms. Multiple users can create unique content for each display.

Live TV Content Guide & Recording

DEVOS IPTV can deliver live TV channels in full HD quality to classroom computers and hallway TVs. An optional TV channel guide allows teachers to find and record specific educational TV programs.

Emergency Priority Alert

Priority Alert is included in every DEVOS system and used for delivering emergency information. Broadcast live or VoD videos, web pages, and messages to one, some, or all desktops and signage displays. SMS text and video messages can be sent via the DEVOS portal from anywhere. Integrates with existing emergency notification systems to enhance school security.

TECH SUPPORT ALWAYS INCLUDED

TOP THREE REASONS SCHOOLS CHOOSE DEVOS

1. Our tech support team is responsive and diligent, available via phone and e-mail.

2. A DEVOS installation takes hours not days or weeks.

3. Your requests and feedback are part of our R&D process to make DEVOS even better.

From Crisis

To Opportunity

FOR MANY SCHOOLS THE COVID-19 EDUCATIONAL CRISIS IS AN INCREDIBLE OPPORTUNITY TO REVOLUTIONIZE THEIR SCHOOL'S TEACHING PROCESSES AND TECHNOLOGY FOR THE MODERN STUDENT.

» Capitalize on the school community's urgency to create a long-term hybrid education solution that works for everyone.

» Replace a collage of emergency remote teaching applications with one platform to affect lasting and positive change within your school system.

» Update aging and vulnerable hardware, to increase security, privacy, and productivity.

AN ALL-IN-ONE HYBRID PLATFORM

DiscoverVideo's DEVOS is the best all-in-one video distance learning and hybrid platform for your immediate and long-term educational needs.

DEVOS has all the recommended features to create the optimal online and in-person hybrid learning experience.

» DEVOS is user-friendly, private and secure, flexible, and scalable.

» It is economical, giving you the most bang for your emergency education funding dollars.

» Our products and services are well supported, giving you the hands-on help you need to easily transition to a hybrid classroom model.

FREE 30-DAY DEVOS TRIAL

Take DEVOS for a test drive. Includes video conferencing, direct recording from webcam to the on-demand library, and access to Learning Path video course creation and assessment portal.

CALL (860) 800-9922 | EMAIL SALES@DISCOVERVIDEO.COM

Discover
Video

STREAM
CONNECT
MANAGE
DELIVER

DISCOVER VIDEO

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