



*News, reports, questions, & comments about Queensborough's technology environment. A publication of the Committee on Computer Resources, a standing committee of the Academic Senate*

## Webcams and Headsets to Buy for Online Teaching

David Moretti, Marketing and Communications

With the upcoming semester fully online, now is the time to consider the newly necessary tools of teaching. To that end, I am looking, again, at audio and video equipment you can use to teach your classes.

Things to keep in mind before dropping money on a webcam or headset:

1. What video quality does the webcam output?
2. does it have integrated audio and do you want integrated audio?
3. How easy is it to install?
4. How much does the webcam/headset cost?

I will forego advice on how much to spend as that is solely up to you and your budget. Let's start with video quality for webcams: most laptops record in 720p, which is decent and will work, but if you have a desktop or a laptop without a video camera, look for one that offers 1080p. Think about it this way, if you were watching a video on YouTube, you would want to view the one in the higher

resolution as it looks the best. Your students are the same way.

The most commonly recommended webcam is the [Logitech C920 1080p](#), which breaks the bank at around \$66, but records at 1080p and has “tons of endorsements from YouTubers and others who use this webcam for video conferencing and blogging” (Online Teaching Now, 2018). If you want to go budget webcam, then definitely pick up a headset with microphone. A budget webcam, ranging in price from \$15 US to \$35 US, will serve its purpose but come at cost of quality, i.e. 720p resolution, etc. A good quality webcam will range from \$60 US to \$200 US. If you want to be on par with the livestream stars, you can easily drop \$500 or more on a high-end professional webcam with 4K output, wide-angle lenses, and professional-level microphones. For searchable lists of suggested teaching webcams, visit [ESL Authority](#), [Teach & Go](#), [DigiNo](#), [Online Teaching Now](#), [Tech & Learning University](#).

Does the webcam have integrated audio? This is a convenience that many webcams offer, but personally, I have separate audio from my video, meaning I disable the audio for my webcam (done in Windows settings) and I use an external audio source (headset with microphone that has a

dedicated mute button). Why? For clarity. Having the headset and microphone separate from the webcam means my audio comes over cleaner and possibly louder. This is subjective. You can use a separate microphone, like a [Blue Yeti](#) USB Microphone to give you that somewhat professional sound. I am sure the audiophiles on campus may prefer professional studio-quality microphones, but that puts us in a higher price category.

How easy is it to install? Most are as simple as plugging in the USB cable and letting your operating system (Windows or Mac) install a driver or following the manufacturer's instructions to install a driver (software that allows the computer to interface with the webcam).

In the end, it all comes down to price. The best bang for the buck is the Logitech C920 1080p webcam. It has two built-in microphones with noise cancellation, 20-step autofocus, low-light correction, and a 78-degree field of view, supports various operating systems, and costs between \$60 US and \$70 US depending on which online retailer you visit.

## **Mitigating Student Testing Issues on Blackboard.**

Daniel Armstrong, Health, Physical Education, and Dance

As we have all learned this past spring, delivering an online exam can be challenging. There are a myriad of possible issues that can cause difficulty and ultimately harm the delivery and integrity of the assessment. Careful planning by the instructor and clear communication with the students can mitigate these issues.

Blackboard supports several browsers, including Firefox, Chrome, Edge, and Safari. It may be a good idea to communicate to students to make sure they are using one of these browsers when accessing Blackboard. Internet explorer is specifically listed as an unsupported browser and

should be avoided. This may be a problem as it is the default browser on many computers. Students can also access Blackboard with a mobile device but a computer is preferred. Blackboard states that while mobile browsers may work successfully for some features, their interface is designed for use with the larger screens of laptop and desktop computers.

It is inevitable that issues will arise where students will say they had difficulty accessing the exam. Blackboard provides a tool for instructors to see just how much a student interacted with an exam. Instructors can view a test's access log to see what times students interacted with a test. The log can help confirm whether a student began a test and when they ran into problems by keeping track of their interactions with each question. If a student did have an issue all the instructor has to do is clear their attempt to allow them to restart which is much easier than adding an exception.

To protect the integrity of exams the following practices may be beneficial. You can set a specific start and end time for each exam. You can schedule it so all students are taking it during the same window to minimize students talking with each other about the exam. A time limit also helps to prevent students from looking up answers. Questions and multiple-choice answers can be randomized automatically to prevent cheating. Blackboard also has safe assign built into it to check essays for plagiarism.

This article only scratches the surface of the features of Blackboard. If you would like more in-depth instruction on the use of Blackboard, the [Office of Educational Technology](#) offers several workshops through the year.

## Using Blackboard in the Transition to Distance Learning

Adrian Bordoni, Social Sciences

The following article is not meant to be a full review of the Blackboard application, but rather a brief discussion of its application within the Distance Learning model used in my Spring 2020 classes.

When deciding how to continue working with my Criminology classes under the new online realities of Spring 2020, I relied on some of the basic functions of the Blackboard educational platform. I have been familiar with Blackboard (BB) for the past ten years but relied on e-portfolios to share my course work, until it became a necessary option, especially to be compliant with the requirements set by CUNY. Additionally, BB is easily accessible to all our students and it is the default platform used by many of my colleagues. For those who are not familiar at all, Blackboard will host your class folders, materials, videos, slides; it also allows faculty to create gradebooks, quizzes, grading of online exams etc.

The first step was to transfer most of my information to BB by developing folders to include the updated syllabus, remaining readings for the course, the midterm and final exams. One of the most useful functions was the ability to post an announcement and have it emailed automatically. All registered students received messages and were updated to changes such as the new recess, the changes to the class calendar and the new schedule of live sessions, in lieu of face to face classes.

Additionally, to help encourage participation based on the class readings it was recommended by some colleagues to develop discussion boards (DB) where students could answer a few questions on a thread. Each answer can be read separately, and the instructor and the students can reply to the posts. Most students, about 90%, contributed to the DB

and it made for a reliable assessment of their on-going classwork.

The course tools that I used extensively, and worked very well, was the Live session capability when students would meet online during our scheduled class times. Blackboard Collaborate Ultra, located in the Course tools menu, creates a meeting space online for all students registered in the course. Once they go to BB and find the Live session link, they can join a session from their computer or from their smart devices. I hosted three live sessions, one for each month remaining in our schedule and I used several BB tools to finish teaching the class. Collaborate Ultra allows you to share your computer screen to watch a video or read a document or a file so I can go over each concept, answer their questions and make sure they were ready for the final exam and final projects.

One additional advantage to using BB was the ability to record all sessions and make the link available to students that missed the live discussions. Faculty can download the recordings for future use or reference.

Challenges to this platform included a lag on the videos and audio issues which seemed to occur when too many people were online at the same time. A few students shared that they would get logged out at some point or could not hear the audio so they would have to logout and then log in. Also, using a phone instead of computer did limit some of the functions such as answering surveys or being able to view the shared screens.

Overall, although I used only a few of its dozens of functions and tools, Blackboard was very effective when applied in a distance learning model and helped many students successfully finish the Spring semester. For a full explanation of Blackboard, QCC has webinars throughout the year and many on file at <https://www.qcc.cuny.edu/oet/RecordedSessions.html>.

## Creating Lectures Using Blackboard's VoiceThread Tool

Jillian Bellovary, Physics

There are many ways to post and share lectures online, and I've found VoiceThread to be a straightforward way of not only transmitting content but also ensuring student participation and engagement. In addition to hosting your lecture, VoiceThread allows students to make comments during the lecture, ensuring that they need to pay attention and follow along sequentially. I have used this method in my flipped classroom for a few years now, and find that requiring comments from students is a great way to check that they are doing the work as well as assess whether the content is getting through to them. The students like it as well - they can replay parts of the lecture to take better notes or understand difficult concepts, and if they zone out or fall asleep they can pick up where they left off. While the creation of such lectures is initially labor intensive, they are saved within Blackboard and can be reused for future semesters.

All you need to start are slides (powerpoint or PDF format) and an idea of what you want to say for each slide. You can also embed videos from online (e.g. Youtube) but note that animated GIFs don't work.

Here are the steps:

1. Open VoiceThread
2. Upload a powerpoint file to VoiceThread
3. Record a comment for each slide
4. Set up the assignment

### Step 1

To open Voicethread, enter Blackboard and go to any one of your courses. Go to Build Content and select QCC VoiceThread LITOne from the drop-down menu. Make this item unavailable to students, and give it a name like "VoiceThread Access." Save this item. This is the link you'll use to access VoiceThread to add lectures and make

edits. Click on it and select "VT Home." (If it says "Success" only, give it a refresh to see more options.) You may need to create or verify an account if you've never used VT before.

### Step 2

Once in VoiceThread Home, you'll see a menu on the left with the courses that are available. Pick one, and then on the top click on "Create."

This is where you upload your slides! Select "My Computer" to find your file. Remember that animations won't work, and a few fonts are also unsupported. Once your files are uploaded, check to make sure they look alright. You can also add a video or other web-based content (select "URL").

### Step 3

Once the files are uploaded, you can edit each slide individually and record your voice. To do this, click on the comment icon in the center of the screen. You can record audio, video, or upload a previously recorded file of you speaking. I like this method because I don't have to worry about recording an entire lecture all at once. If I make a mistake, it's only ~1 minute of time to redo it. You can also use the "pencil" feature to draw on each slide as you speak. The pencil marks fade away after several seconds.

### Step 4

Once your lecture is finished, you can create an assignment for your students. To make it worth points and have it included in the Blackboard Gradebook, go back to Build Content and make a new "QCC VoiceThreadLITOne" item. Give this one the name that you want your students to see. If you want to make this lecture an assignment that requires responses, choose "Enable Evaluation" to enter a point value for this assignment, and "Track Views" if you like. Save this item.

Next, click on this new item to finish setting up the assignment. One of your options will be "Assignment Builder." Choose this and then select "Submit a Comment" to enable student comments. Select the appropriate lecture from the menu on the

left, and then enter how many comments are required for the assignment. Make sure you have checked “share with class.” The checkbox “moderate comments” will keep the comments private so only you can see them; uncheck this box and comments will be public to all viewers. Save and you’re done! Now when you click on the assignment in Blackboard, it should open up to VoiceThread and display your first slide, with the option to play the entire lecture.

## Discord for Education

Joann Sum, Engineering Technology

Discord is a dominant online application in the video gaming industry for real time communications, chat rooms and screen streaming. Due to its popularity, a fair number of students are already familiar with the application. Recently, during the COVID-19 pandemic, we have seen increasing uses of the application for educational purposes. In brief, Discord offers the following features which make it an ideal tool for online classwork:

There are other things you can do with VT too, feel free to experiment! You can do lectures without comments, and have students simply view them. You can also have students create their own VoiceThread presentations. The possibilities are vast, so play around and see what you come up with!

- A dedicated, free to use, invite only workspace (server), which can be used as a virtual classroom
- Text channels to organize things like lessons, homework, or study groups
- Voice channels for both one-to-one and group discussions, or even office hours
- A real-time teaching environment where lessons can be shared with up to 50 people at a time (recently expanded from 10 to 50 due to COVID-19).

Discord works on any device (phone/iPad/surface/chromebook/computer). Students can connect via a web browser for audio

The screenshot shows a Discord chat window for the 'QCC Tutoring' server. The main chat area displays a message from 'Tutor\_Chuan' dated 05/19/2020, which includes a hand-drawn diagram on graph paper. The diagram shows a flow between 'Student' and 'Course' boxes. Arrows indicate interactions: 'addCourse' from Student to Course, 'add student to course' from Course to Student, and a feedback loop from Course back to Student. Below the diagram, the text reads: 'make sure it doesn't loop if you add course caps add student and addstudent calls withcourse'. The chat also shows a message from 'Yashira\_Gonzalez' dated 05/19/2020, stating 'ok that helps me understand it better from your explanation'. The interface includes a sidebar with server information and text channels, and a right-hand panel showing a list of online users.

chat/text/file sharing or install the application to stream their desktop. Both versions work with Discord servers that are free to setup and administrate as the instructor needs. The application also includes configurable malware/inappropriate content protection and general privacy options. Most importantly, one can have chat rooms of up to 50 students to do virtual classrooms or even office hours for any students, not just students in one section. Furthermore, the chat servers can remain open for community discussions 24/7 so that students can interact with audio/video/files/screen sharing on their own even if the instructor is not present.

During the COVID-19 pandemic, the ET department in conjunction with QCC WiTNY grant successfully implemented an online tutoring server via Discord, which provides academic tutoring to improve students' skills in the programming language classes. If you would like to connect to the tutoring server:

- 1) Create an account at [discordapp.com](https://discordapp.com).
- 2) Click on this link: <https://discord.gg/28CPqRBu>

The virtual tutoring room provides a few text channels, which are primarily named after the course titles, such as ET574, ET575 and ET580, and are used for course specific discussions. A general text channel was provided for general topic discussions. Tutors joining the text channels identify themselves with their usernames prefixed

[The Committee on Computer Resources is Tim Keogh (Chairperson), Adrian Bordonni (Secretary), Mike Cesarano, Jillian Bellovary, David Moretti, Jonathan Funk, Daniel Armstrong, and Joann Sun; Lloyd Pierre (Student Representative), Jed Shahaar and Lucien Makalanda (Steering Committee Liaisons), Julia Rothenberg (COC Liaison), and Bill Faulkner (President's Liaison).

with the word 'Tutor'. A voice channel is also available for one-to-one voice discussions. Since the tutoring server went live, we have found that tutors can reach out to many more students in an efficient and effective way through chat groups, voice meetings, and document sharing, especially during this pandemic. Students can join the virtual tutoring room 24/7 to seek help. As a matter of fact, one of our end of semester surveys has shown many more students seek online tutoring during the pandemic than in any other period. The same server will continue to work through the summer to meet the demands from the students taking summer classes.

In the near future, after our school reopens, we will assess what we have learned from the various of online tools during the pandemic. Nevertheless, Discord has shown its strengths and potential in the educational world. Its channel notification separation, extensive management options, simple usage, group-oriented voice chat, abundance of free features, and amazing web/mobile/desktop support proved very useful.

Thank you to all our committee members, student representatives, liaisons, and associated faculty and staff for a productive year, especially amidst a global pandemic.]