WABASH COLLEGE
Classroom Technology Capabilities and Strategies for Hyflex Instruction and Support of Remote Learners
July 30, 2020

Below is a summary of technologies that will be available in classrooms this fall to facilitate in-class instruction, hyflex classrooms, and support of remote learners. Please see the *Keep Teaching at Wabash* website (https://www.wabash.edu/technology/keep_teaching) for additional information that will soon be posted, including a list of the specific technology available in each classroom; detailed help guides on using the tools summarized below; and a schedule of training sessions, offered in classrooms and online through Zoom.

Discussion-focused small to mid-sized class

The Meeting Owl camera offers a 360-degree view of the classroom, and is ideal to use with Zoom for small- and mid-sized class discussion when some students are physically present and others remote. The Owl Camera shows a small 360-degree panorama of the entire room at the top of the video feed, and in the lower 2/3 of the video feed focuses on whoever in the room is currently speaking (see sample image below). It works best when it can be closer to the middle of the room, with students arranged in a circle or square, and surrounding the Owl camera. The Owl includes multiple speakers and microphones in a self-contained unit, and integrates with Zoom like any other webcam. We anticipate twelve Owl cameras will be permanently installed in classrooms for the fall, with a few other roving units for occasional use in other classrooms.

Lecture-focused class with remote viewers and lecture capture

Classes that are predominantly lecture-based can be streamed over Zoom from any classroom. The most common use would be to share the computer screen with both the classroom projector and the Zoom feed, so that students in class and those who are remote could see the same information. Remote students will see the computer feed, as well as a thumbnail of the computer webcam, similar to:
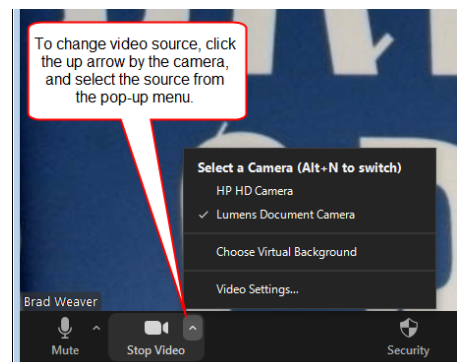

Depending on the class size, questions from students in the room may be a challenge for those online to hear, and may require repeating. It may also be helpful to appoint a student in the class to monitor the Zoom chat for questions or needs from remote participants. For later viewing, the Zoom session can be recorded during class and then uploaded directly to Canvas.

To allow for some mobility during your lecture, wireless USB headset microphones are available to all faculty on request, which will allow you to move around the room while still capturing audio for the Zoom feed. To request your personal USB microphone, contact the Help Desk (helpdesk@wabash.edu), or you may also pick one up at the training sessions. To use the microphone, plug in the USB adapter prior to starting the Zoom session. Note that for classrooms with Owl cameras, it is best to use the Owl camera microphone so that remote students could hear any class discussion.

Blackboard / Whiteboard replacement

A significant challenge with supporting remote learners is capturing things written on the board. The simplest alternative is a document camera – essentially a camera pointing straight down that can focus on paper (or three dimensional objects) and broadcast to both the projector and over the Zoom feed. Zoom sees the document camera as another camera source, so to broadcast the document camera instead of the webcam, just switch the source as indicated in the photo to the right.

Small group discussions

Classes that make use of small group discussions or projects can take advantage of Zoom breakout rooms to connect remote students much as those present in class might work. If some students in class have laptops or tablets, they could join the Zoom session to pair remote and in-class students together.

In-class projection

All classroom spaces (both traditional classrooms and those provisioned for classroom use this fall) have a dedicated projector and computer for projection. Most classrooms also have a DVD player, Apple TV, and document camera. Given the increased spacing, we're upgrading projectors in larger classrooms and those used extensively. New projectors are brighter and operate at a higher resolution, and should be easier to see especially for students at a distance.

In-class audio

Large classrooms (e.g. Salter Hall, Hays 104, Baxter 101) have in-room audio and microphones for audio reinforcement. IT Services will work directly with faculty who are teaching in these classrooms to review the operation of the sound systems and review cleaning protocols for microphones.

For smaller rooms without in-room audio, it is possible to use the computer speakers on the projection system with the personal USB microphones (described above) for in-room audio reinforcement, though we encourage faculty who would like to use this option to test in their classrooms, as some room configurations may cause feedback or other audio distortion. This use will be demonstrated in our training sessions, and detailed instructions posted on the *Keep Teaching*.

Classroom Technology Configurations

On July 31, we will post a list to the *Keep Teaching* website that summarizes the technology available in every classroom, including which rooms will have Owl cameras, document cameras, and in-room audio systems. It will also identify the classrooms that have had projector upgrades or other A/V enhancements this summer. Note that while the list will accurately represent our plans for the fall semester, we are still completing setup and are awaiting arrival of some components, so not all classrooms are set up today as the document will describe.

Getting Help

We will offer open training sessions in Baxter 114 in the two weeks leading up to the start of classes. These sessions will focus on lecture streaming and capture, group discussion with the Meeting Owl, and document camera use. We will provide additional focused training in specialized classrooms, including Salter Hall, Ball Theater, Library Goodrich Room, Allen Center Fieldhouse, the Chapel, and Hays 104. The schedule for those sessions will be announced on July 31. Finally, IT Help Desk staff are available to meet faculty in individual classrooms in August to review the operation of specific spaces.