A Participant's Introduction to Videoconferencing

Welcome!

All across the Penn State system, you'll find videoconferencing facilities in use, allowing students, faculty and staff to communicate with one another while staying close to home. These facilities have been used to conduct meetings, job interviews, dissertation defenses and many classes.

Videoconferencing makes it possible for participants at different sites to communicate in real-time, visually and aurally, through the use of two-way audio and two-way compressed video. Because of special cameras, viewing monitors, and microphones at each location, participants are able to interact with distant sites easily.

Videoconferencing facilities are currently located on almost every Penn State campus, as well as at sites across the country and the globe.

How does this technology work?

Video cameras, video monitors, microphones, and a document camera make up the basic components of the videoconferencing facilities.

The Cameras

Each facility is equipped with at least one video camera that allows participants at different sites to see one another. The camera is usually located on top of a video monitor.

You will notice that the quality of the video, while good, is not the same quality that you see on your television screen at home. This is because the system utilizes "compressed video" technology. This technology requires less bandwidth to transmit the information and is, therefore, less costly than the type of video transmission utilized in your home. The only noticeable difference you may detect will be a slight "strobe" effect when someone makes a quick movement in front of the camera.

The Video Monitors

In the front of your classroom there are one or two viewing monitors. In a two monitor system, the left monitor is the "preview" monitor and is used to display any information your site wants to share with other sites. This could include the presenter, if she or he is at your site; a view of the participants in your location; information being displayed via the document camera; a film or video, etc.

The right monitor is the "receiving" monitor and displays an image from the other site(s). It is through the receiving monitor that you will be able to see participants, or even a presenter, who are located at remote sites.

The Microphones

The classrooms are equipped with microphones to allow you to communicate with participants at other sites. The small, powerful microphones are extremely sensitive. Any pencil tapping, paper shuffling, or side comments to a peer may be heard by all the other participants. You will want to keep background noise to a minimum. The microphones at your site are tied in to the videoconferencing system's control pad. It is possible to mute all the microphones at your site with a simple touch of a button on the control pad.

You may notice a slight delay from the time something is said at one site and the time it seems to be heard at the other sites. That is because it takes approximately one and half seconds for the audio and video signal to reach the other sites. While that might not seem like a long time, it can feel like an eternity, especially if you say something funny and you are waiting for folks to laugh! However, once you get used to the communication "flow" in this environment, the lag will seem to disappear.

The Document Camera

Most of the videoconferencing facilities at Penn State are equipped with a document camera. This tabletop piece of equipment takes the place of the traditional chalkboard and overhead projector. One may place visual aids on the platform and the small camera that is attached shares the image with the other sites. One can also place a piece of paper on the platform and write on it, turning the document camera into a chalkboard.

It is also possible to plug a computer, slide projector or other video source into the document camera, allowing one to share information from those sources with all of the sites.

Tips for effective communication

Below you will find some hints to help you communicate effectively with remote participants. While you may be reluctant to communicate through the system at first, before long you should feel right at home in this environment. There are several points to keep in mind when participating in a videoconferencing session:

- First, speak toward the microphone located nearest to you in the room. As mentioned above, the microphones are fairly sensitive—simply speak clearly and loudly enough to be heard.

- Try not to make any extraneous noises which could be picked up by your microphone, such as tapping your pencil or whispering loudly to a peer. Be careful not to cover the microphone with your materials.

- Don't be afraid of the camera! While addressing the other sites, be sure to look at them in the video monitor. Since the camera is located just above the monitor, this will ensure that you are making eye contact with remote participants.

- Please be careful not to spill any food or drink—it could damage the equipment.

- Let the other sites know if you are having trouble hearing or seeing the information being presented.

- Most importantly, relax!! You will find that this is an informal way to communicate...it is not broadcast television. If you have any questions or concerns, please feel free to ask your site's technical contact. For Penn State's public sites, these contacts are listed at http://tns.its.psu.edu/Services/vidconf/videodb.asp

What if the technology doesn't work?

While this is a fairly reliable technology, it's not perfect. If there is a technical problem during your class, the first thing to remember is: Don't worry.

- The problem usually has a very simple solution. Your class may be back up and running after a short break.

- Discuss a "backup plan" with the other sites. Make sure you all know what the plan of action is if there is a technical problem.

- You should be sure that you exchange the phone numbers for the telephones that are located in your respective facilities, so that, if the technology fails, you can call one another by telephone. Again, the problem will probably have a simple solution. By calling one another by telephone, everyone will know what is going on and what steps should be taken to address the problem.

- Get to know the technical contact at your site! In the event of trouble, the technical contact for your site should be available for assistance in troubleshooting. For additional assistance, the technical contact of a room maintained by the TNS unit of ITS may contact the TNS Network Operations Center at 814-865-4662 (865-4NOC).