Using Effective Multimedia

The use of multimedia in an online course is at the top of the 21st century student "learning preference" list. Students expect the use of multimedia today in the online environment. Cognitive theory states that it is important to combine words and pictures effectively to produce deeper learning experience for the students.

Students learn better from words and images than words alone. Top that off with the recognition that it is the student's preference, we need to promote lecture capture, images presentations with voiceover, and audio with graphics. But when do we use it?

Ideally, multimedia should be used when imagery and voice can do a better job explaining than text alone. It is not used as entertainment---it is for learning. It can be used to support facts, concepts, processes, procedures, and even principles. All media should be tied directly to critical course materials, hard to understand concepts, and be designed to enhance student learning outcomes. And when used, it should have good visual clarity, be a reasonable length as to not impact download and student focus, and have reasonable American Disability Act accommodation (meaning a text script or closed captioning).

We expect to find multimedia in most learning modules with transitions/connections to other content in the module. Remember not to cause cognitive overload with content and there is a growing tendency to use too much video, especially in regards to duration of play. Ideally videos should be no longer than 20 minutes.

Images, Graphics, and Diagrams

Faculty members are encouraged to use meaningful visual media such as images, graphics, and diagrams in their online courses. This type of media can be best determined as "meaningful," when they contribute directly to the learning process and tie to unit or course learning objectives/outcomes.

Ideally images should be clear and limited in size, due to the image of load time on student computers. Images must also be permitted by copyright law, if not the direct property of the course instructor. All media of this type, requires academic quality captions and alt text. Captions can be short and concise; however, they must provide the source. Alt tags must be designed to convey to the student with a visual disability what sighted students see and comprehend.

Videos

Video and audio are force multipliers in an online course when selected and utilized wisely. They are better than just reading since they impact two channels of working memory. However, media you select:

- Must have its importance in the learning process emphasized
- Must be tied to key concepts, ideas, and learning outcomes
- Must be testable
- Must be limited in length
- Must be of high quality (visually and audibly)

- Must have an academic quality transcript or closed captions
- Must have a stop or pause option
- Must be loaded as a mashup or on the campus streaming server, NOT embedded in the course due to storage limitations on the server
- Videos should not be set to play automatically by default
- Must be copyright use approved and written permission must be obtained by and on file with the faculty member for any external videos

Faculty can also create their own videos. The Office of Instructional Technology (OIT) has video cameras available that can be checked out. When creating a video yourself, consider the following:

- Video should be in mp4 format
- Consider including a brief introduction and summary
- Avoid going off on tangents. Using a script or outline will keep you focused and prevent retakes
- Dress professionally
- Ensure proper lighting and watch your background
- Speak louder than normal
- Get rid of background noise and white noise as much as possible
- Pause every few minutes and emphasize key points or ask a question
- Have fun doing your video. It is an opportunity to be yourself and enjoy sharing information with your students.
- All videos must be placed into the MSU YouTube account or OIT's YuJa account to ensure students will have access to the video and it will be available for future courses.
- Video files should not exceed 15 minutes unless lecture capture is used. When larger video projects are needed, chunking is recommended (i.e.; Part 1 of Teaching Myths, Part 2 of Teaching Myths, Part 3 of Teaching Myths)
- Compression of at least 512kbps is required
- All video should be clear and functional
- An "approximate" text alternative or close captioning is required

Note: The OIT YuJa manager will delete all recordings on the YuJa server that are associated with courses two-weeks after the last day of finals. Faculty wanting to save and archive recording must notify OIT before this deadline.

PowerPoint Presentations

The first consideration is to ask if the PowerPoint presentation is to be used as primary content material or support information. The use of an ordinary PowerPoint presentation as primary content is considered not pedagogically sound. When PowerPoint is supported by voice-over by the instructor, this changes the pedagogical dynamics and it is accepted. The voice-over must be used to expound and demonstrate instructor expertise.

The PowerPoint presentations should be made accessible, especially if they are critical to the successful completion of the course. This is a faculty task since they are the content expert. OIT can

show faculty how to perform this function. Regardless, PowerPoint presentations must be accompanied by the appropriate "use definition" for students. For example:

- PowerPoint presentations in this course are supplemental in nature and are intended to serve as a study aid only. There is no 'requirement' to view them.
- PowerPoint presentations in this course contain primary course materials and their review is essential to the successful completion of this course.

OIT also has high-quality microphones that can be checked out for faculty use.

Audio Files

If audio files are incorporated into an online course, the following guidelines should be followed:

- Audio should be provided in both mp3 and wma format for PC and Mac accessibility
- Audio files should not exceed 30 minutes
- Hyperlinks to audio files will be name-based, not URL-based (i.e. Lincoln's Gettysburg Address not www.AmericanHeroes.org/lincoln)
- All audio should be clear and functional
- Audio files will have an "approximate" text alternative or be closed captioned
- Copyright will be strictly observed. Use of audio from external sources must be cited and permission obtained and on file with the faculty member
- Audio files should not be loaded course directly into a course, due to storage limitations on the server. OIT will assist in placing audio files on the streaming server and linking them in the course shell.