

Audio and Video Standards for Online Learning

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Introduction

Digital media is a powerful tool that can enhance your online course. Recent developments and market trends have changed the rules and media formats that need to be considered when creating media for your course. Choosing the correct video and audio format is the first step to insuring a successful experience for both instructor and student. Podcasts, a form of digital media meant for downloading to a portable media device are included in this discussion.

Video and Audio Formats

Popular media formats for audio and video include RealAudio® and RealVideo®, Windows Media®, MPEG 3, and MPEG 4. Each requires software that will encode video/audio to that format, and also a player that will decode the video/audio for playback. All these formats are currently being used in e-learning with great success. The latest market trends are now suggesting that MPEG 4 for video and audio and MPEG 3 for audio only are “the” standards for digital media.

Why MPEG 4 and MPEG 3?

MPEG 4 and MPEG 3 are the standard because of consumer response. Apple adopted MPEG 4 early on as the video format for playback on their iPod®s that support video. Apple and YouTube worked together to allow YouTube video to be accessed by an Apple TV®, iPhones®, and the iPod® Touch. YouTube moved from Flash Video to MPEG 4 to accommodate these devices, and Adobe soon followed by updating its Flash Player to play MPEG 4 video and audio. The new High Definition Blu-ray™ DVD standard uses MPEG 4, as does DirecTV® and Dish Network® for the delivery of HD programming on their satellite networks.

MPEG 3 has become the standard for compressed digital audio files. It was made popular by consumers wanting to compress large amounts of audio onto a single CD. It is the standard for small portable digital media players (often called MP3 players) on the market today.

Thank the students in your classes for buying millions of iPods that helped set this standard. Your students are already familiar with MPEG 4 and MPEG 3 and are using these standards.



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About MPEG 3

MPEG 3 (denoted by an .MP3 file extension) is a standard for audio only files. Every consumer portable media player supports this format. If you are creating audio files for your e-learning, create them in the MP3 format. Audacity® is a free audio editing tool available for both the PC and Mac that can be used to create MP3 files.

About MPEG 4

MPEG 4 (denoted by and .MP4, .M4V, .M4A, or .M4B file extension) is a format for audio only, video only, or video with audio, and some enhanced versions that are audio with graphics. Sometimes MPEG 4 video is called H.264, in reference to the compression standard that is used to create the MPEG 4. Many programs like Sorenson Squeeze, Final Cut®, iMovie®, Vegas® Movie Studio, Vegas® Pro, QuickTime® Pro, and GarageBand®, are examples of programs that can be used to capture, edit, and compress media into the MPEG 4 format.

What About Other Formats?

Other video formats such as RealNetworks and Windows Media are still alive and well. A large amount of e-Learning video produced over the last 8 years is likely in these formats.

Before beginning to work with digital audio and digital video, check with your campus Blackboard support team or campus media production group to determine what digital media infrastructure already exists on your campus. You may find that they have servers, compression technology, and expertise to help you reach your goals.

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