

Sharing Original Video Content in Learning Management Systems ELCC Conference: Thurs. April 14, 2011

Why should I use streaming video instead of uploading video files to my LMS?

1. Space limitations on LMS servers that are not purposed for video content
2. Requires students to download file to own computer, which can take a lot of time
3. Many files require plugins in order to play correctly across platforms (Quicktime, Flip 4 Mac, DivX, etc.)
4. Some files might not play at all! Just because it runs on your computer does not mean it will run on others

Which streaming solution is better?

Well, it depends on what factors are important to you.

Public, Web Based Streaming Solution	University-Hosted Streaming Solution
Free, or minimal cost for "pro" account	Requires large infrastructure investment
Native, automatic encoding	Content must be properly encoded before upload
Content resides on Vimeo/YouTube servers	Content resides on University servers
Ability to enable some privacy controls	Privacy levels determined by user
Content can be indexed for online search	Content can be "locked down" to one environment



YouTube	Vimeo
Ubiquitous	Less well-known
Easily Searchable	Can customize privacy levels
Good if looking for maximum exposure	Limited exposure, community-based
15 minute limit on individual uploads	500 MB limit per week for free account
Lots of "other" content to wade through	Geared toward film makers, less "junk"

What about video editing?

Windows PC Users can use Movie Maker, which is a free download from Microsoft. Apple Macintosh computers usually come pre-loaded with iMovie. Both feature a drag and drop interface and prepackaged effects and transitions. They will output to several different file formats, or even upload directly to YouTube or Vimeo.

What compression settings should I use?

If you or your students are using a more sophisticated video editor, you will want to export your project into an appropriate format for streaming. An uncompressed movie will not stream online. At DU, we use these settings for videos on our streaming media servers:

<u>Video</u>	1000 kbps (1 mbps bitrate)
AVC/H.264 Video Codec	
512 px wide	<u>Audio</u>
Variable Height (depending upon original aspect ratio)	AAC Audio Codec
Native Frame Rate [same as orig.]	Stereo Output
Interlacing Removed [progressive]	44.1 kHz
Square Pixels	128 kbps
	Container format: F4V, M4V, MP4

These settings are quite adequate for full screen DVD-quality streaming videos. The settings can be tweaked and customized, but it is very important to keep an eye on the bit rate.

Services like Vimeo and YouTube will do the compression for you. Compressing a video beforehand, however, will allow you to upload more content to Vimeo in a given week, since there is a 500MB cap on uploads for their free account.

Resources

Vimeo: <http://vimeo.com>

YouTube: <http://youtube.com>

JayCut online video editor: <http://jaycut.com/>

Handbrake video encoder: <http://handbrake.fr/>

DropFolders (Handbrake simplified): <http://ctl.du.edu/staff/josephlabrecque/DropFolders/>

7 Things You Should Know About Flip Cameras: <http://net.educause.edu/ir/library/pdf/ELI7043.pdf>

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