INTRODUCTION TO STREAMING MEDIA THROUGH BLACKBOARD
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KALTURA TOPICS

• Overview of Video Formats / Compression
• “Best Practices” for Web Videos
• Handy Tools for Video Compression
• Copyright Issues
• Blackboard Integration
OVERVIEW OF VIDEO FORMATS / COMPRESSION

RAW VIDEO

• Camcorders and digital cameras create “raw” or uncompressed video (also called “source video”)
• Raw video is maximum quality
• Raw is good for transferring to other media or immediate playback
• Raw is NOT desirable for streaming media
• Raw video is MUCH, MUCH larger file size than compressed video
OVERVIEW OF VIDEO FORMATS / COMPRESSION

RAW VIDEO

• Typical raw formats include
  – *.AVI (Windows)
  – *.MOV (Mac)
  – *.MTS (AVCHD – newer digital camera format)
  – Usually very large files that should be compressed for web delivery.

• Raw video clips can be compressed in a variety of ways to be distributed through multiple media outlets (e.g. web / smart phone / tablet device, etc.)
OVERVIEW OF VIDEO FORMATS / COMPRESSION

COMPRESSED VIDEO

• Renders the raw video into a much smaller video file format

• Uses either “lossless” or “lossy” compression to throw out redundant video information from frame to frame.
  – Most video compression uses “lossy” techniques because the quality does not appreciably degrade to the human eye until a large amount of data has been thrown out.
  – Size of the final video player will also affect final quality (full screen v. small embedded web-based player)
OVERVIEW OF VIDEO FORMATS / COMPRESSION

COMPRESSED VIDEO

• Common compressed video formats:
  • *.MP4 and *.M4V (MPEG-4 part 14) (YouTube)
    – *.FLV and *.F4V (Flash Video) (YouTube)
    – *.QTFF (QuickTime which also supports *.MP4)
    – *.WMV (Windows Media)
    – *.3GP (used by many mobile devices)

• Comparison chart of container formats:
BEST PRACTICES FOR WEB VIDEOS

• Shorter is better / Smaller is better.
  – Shorter videos are preferred by students / viewers.
  – Smaller videos (<2GB) are easier to create / process / upload.
• Use a tripod for maximum stability when shooting.
• A slight overexposure reduces detail, making the background more “the same” and results in a smaller file.
• Use a plain background when possible.
• Zoom in to capture only what needs to be captured.
BEST PRACTICES FOR WEB VIDEOS

• Take time to edit out the “boring” parts, if possible.
• Find the right balance between quality and file size.
  – Consider users’ computer/monitor capability for downloading/streaming videos.
• When creating a video, sometimes “good enough” is better than “perfect”.
• Google Chrome / IE users may need to allow for “unsecure” content before video will playback.
HANDY TOOLS FOR VIDEO COMPRESSION

• Windows Movie Maker (free download)
  – Allows simple editing.

• Any Video Converter
  – Free download for Mac/PC

• Camtasia (video editing software)
  – Installed in eStudio (IDE 104A) / CSF 114, available for licensing.
  – More complex editing features than Movie Maker.
COPYRIGHT ISSUES

• ALWAYS secure permission before uploading copyrighted materials into Kaltura/Blackboard.
• YOU own copyrights to materials you create.
  – If splicing in third-party content into your video, may need to secure permission first.
• Library resources on copyright:
  – http://libguides.mst.edu/copyright
Instructor would like to have a video available for students electronically. The instructor can work with Library, EdTech or VCC to start the process. No matter where the process begins, it needs to go to the Library for copyright evaluation before moving forward.

Library checks to see if the video is offered through one of the streaming services. If not offered through streaming service, EdTech works with producer to obtain rights to digitize and make available to students. Permission granted, work with EdTech to digitize and make available according to the conditions by the producer. Permission not granted, work with Library to find a different video for needs.
BLACKBOARD INTEGRATION

“TURNING KALTURA ON” IN A COURSE

• Kaltura is available, but “turned off” by default
• Needs to be “turned on” in each course in which you will be using Kaltura
  – Videos only needed to be uploaded once
  – Videos can be reused between courses using the Media Gallery and My Media features
BLACKBOARD INTEGRATION

“TURNING KALTURA ON” IN A COURSE

• Open a Blackboard Course and click Customization on the Control Panel.
• Click Tool Availability.
• Search for Kaltura Mashup and Media Gallery.
  – Check the boxes in the first column next to each item.
• Search for Kaltura Media.
  – Ensure checkbox in last column is checked.
• Click Submit.
BLACKBOARD INTEGRATION

UPLOADING A VIDEO:

• Go to a content area in a course.
• Click Tools.
• Click Kaltura Media.
• Choose method for adding media.
  – Upload previously recorded video file.
  – Select from a list of already uploaded video files.
  – Record “on-the-fly” with a web cam.
• Click Submit.
  – Link to Kaltura Media recording now appears on content page.
  – Users click thumbnail to start playback.
BLACKBOARD INTEGRATION

KALTURA MASHUP

• Allows user to embed a Kaltura recording inside another content item.
• Multiple mashups can be embedded.
• Can embed mashups from other sources (YouTube, SlideShare, Flickr, etc.) along with Kaltura recordings.
BLACKBOARD INTEGRATION

ADDING KALTURA “MASHUP” TO CONTENT ITEM

• Go to a Content Area in your course.
• Click **Build Content**.
• Select **Create Item**.
• Click **Mashup** button in text editor box.
• Select **Kaltura Media**.
• Search for the media file.
• Click **Select** under video clip to choose it.
• Select mashup options.
• Click **Submit**.
• Click **Submit**.
BLACKBOARD INTEGRATION

MEDIA GALLERY

• “My Media” feature allows for more options
  – Contribute clips to Faculty Repository
  – Faculty Repository clips are available for ALL instructors to use on campus!
    • Can remove clips from Repository if desired
  – Can modify courses in which Kaltura clips appear
    • Add clips to selected course galleries
    • Delete clips from selected course galleries
  – Edit metadata for a Kaltura media clip
BLACKBOARD INTEGRATION

MEDIA GALLERY

- Shows all video clips that you have uploaded into Kaltura.
- Allows you to add new video clips.
- Only one media gallery for each course.
- Must be “turned on” for each course in which it will be used.
- Videos in gallery must be made “public” for students to view them.
  - Only visible to students enrolled in Blackboard course.
  - Embed code can be made visible for use in other web pages / sites (e.g. allow non-Bb users to view video).
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