

KEY IN-CLASS STUDENT ACTIVITY 2.3: CHOOSE AND CONFIGURE HTML5 TAGS TO PLAY MEDIA

Lesson Objective 2.3:

Choose and configure HTML5 tags to play media.

Resources, software, and additional files needed for this lesson:

1. Video camera (preferred)
2. Microsoft® Expression® Web
3. Microsoft Expression Design (or similar graphics software)

Guiding questions:

1. **What are the advantages and disadvantages of using the new <audio> and <video> tags available in HTML5?** Advantages: semantic tag, vendor independent (no plug-ins required), elements are part of the DOM, which provides more control with scripts and CSS. Disadvantages: not supported by all browsers (requires Internet Explorer® 9 or higher), which makes it necessary to have several encoded versions available.
2. **What types of controls are available for audio and video?** Controls for audio and video are very similar; they both include native code and JavaScript commands. For example, native commands such as boolean values, autoplay/loop, preload, metadata, and none can be added directly to the tag, such as in `<audio controls preload>`. JavaScript can be used for more control, such as `canplaytype(type)`, `currentTime`, `duration`, `play()`, and `pause()`.
3. **What file types are recommended for audio and video?** Browser support for audio and video varies, but most browsers support .aac, .mp3, and .wav audio files and .mp4 (H.264), .ogg, and WebM video files. Note: iOS ONLY supports H.264, which is propriety codec software.

Student activity:

Directions to the student:

Read the following scenario and answer the questions. Verify your answers with the instructor.

Scenario:

The owner of Margie's Travel is offering a special price on a cruise to the Caribbean Islands. One of the islands is Guadeloupe where French is the dominant spoken language.

In order for her travelers to learn some of the local dialect, she has asked her web designer to add some short audio and video clips to the site. The clips are designed for tourists with little or no French speaking ability. To maximize the clips as learning tools, the audio files must have controls that allow the user to stop, start, and repeat.

Content:

1. Create a simple one-page sample website for Margie's Travel.
2. Record a short video clip on how to say "Hello" in French.

3. Use the new <video> tags in HTML5 to add this video to a website.

For example:

```
<video width="320" height="240" controls="controls">  
<source src="travelVideo1.mp4" type="video/mp4" />  
<source src="travelVideo1.ogv" type="video/ogg" />  
Your browser does not support the video tag.  
</video>
```

4. Review the new controls available with the <video> tag. How do they make the site more user-friendly?

The controls will allow the user start, stop, and pause the audio/video.

5. Create an image (use Expression Design) to introduce the video. Add this image as the poster attribute for the video.

```
<video width="320" height="240" controls="controls" poster =  
"FrenchLesson1.png">
```

Remind students to create an image the same size as the video window.

6. Margie also wants the duration of the files displayed. Update the site to include the duration of each audio and video file added.

The developer can obtain the 'duration' of the audio/video and display this value on the screen with JavaScript.