

Scripting for Multimedia

LECTURE 18: USING THE HTMLMEDIAELEMENT OBJECT

Understanding the HTMLMediaElement methods

- `<audio>` and `<video>` inherit from an HTMLMediaElement object
- You can use the members of the HTMLMediaElement object to control the video and audio playback
- HTMLMediaElement methods
 - `addTextTrack()`
 - `canPlayType()`
 - `load()`
 - `play()`
 - `pause()`

Using HTMLMediaElement properties

- HTMLMediaElement properties
 - audioTracks
 - autoplay
 - buffered
 - controller
 - controls
 - error
 - loop
 - src
 - ...

Subscribing to HTMLMediaElement events

- List of events that can be subscribed to
 - oncanplay
 - onpause
 - onplay
 - onprogress
 - onsuspend
 - onwaiting
 - ...

Using media control

- You can provide custom controls for the media or a custom means to start and stop the media playback

- Example

```
<!DOCTYPE html>
<html xmlns='http://www.w3.org/1999/xhtml' >
<head>
  <title></title>
  <link href="default.css" rel="stylesheet" />
  <script src="Scripts/jquery-1.8.3.js"></script>
  <script src="Scripts/default.js"></script>
</head>
```


Using media control

- You can provide custom controls for the media or a custom means to start and stop the media playback
 - Example (Cont.)

```
...
<body>
  <video id="media" height="480">
    <source src="eagle.webm" type='video/webm; codecs="vorbis, vp8"' />
    <source src="eagle.ogv" type='video/ogg; codecs="theora, vorbis"' />
    <source src="eagle.mp4" type='video/mp4;
      codecs="avc1.42E01E,mp4a.40.2"' />
    <track id="englishtrack" kind="subtitles" src="captions.vtt"
      srclang="en" label="English" default="" />
  </video>
  <br />
  <button type="button" id="play">Play</button>
</body>
</html>
```

Using media control

- Because the controls attribute is not set, the <video> element doesn't display the built-in controls
- Sometimes, you might not want to allow the user to maximize the video, so turn off the controls

- Example of default.js

```
/// <reference path="jquery-1.8.3.js" />
$(document).ready(function () {
    $('#play').on('click',playStop);
    $('#media').on('play',function () {$('#play').html('Pause');});
    $('#media').on('pause',function () {$('#play').html('Play');});
});
function playStop() {
    var media = $('#media')[0];
    if(media.paused) {media.play();}
    else {media.pause();}
}
```