

OIM3690 - Web Technologies



Multimedia and Embedding

Linking

- After clicking, the file is opened in full window or asked to be downloaded
- Linking to a YouTube video
 - Copy the URL and paste it in an `<a>` tag
 - Example:

```
<a href="https://www.youtube.com/watch?v=dQw4w9WgXcQ">Ed Sheeran - Shape of You</a>
```

- Linking to a file
 - Examples:

```
<a href="https://www.w3.org/WAI/ER/tests/xhtml/testfiles/resources/pdf/dummy.pdf">dummy.pdf</a>  
<a href="README.md">README</a>
```

Embedding

- An embedded object inside part of your page
 - can be positioned or floated with styles
 - e.g. embedding a YouTube video
- A variety of tags:
 - `<audio>`, `<video>` (new in HTML5)
 - `<iframe>` (commonly used)
 - `<object>` / `<embed>` (going out of fashion)
 - `<canvas>` (to draw graphics and animations)
 - `<svg>` (to draw 2D-based vector graphics)

`<audio>` and `<video>`

- Attributes:
 - `autoplay="autoplay" | autoplay` (starts on page load)
 - `loop="loop"` (plays continuously)
 - `controls="controls"` (displays controls)
 - `src="path/to/file"` (similar to `src` for ``)
 - `height` and `width` (for `<video>` only)
- `</audio>` and `</video>` are required
- supported media formats

<audio> and <video> example

- <audio>

```
<audio autoplay controls src="media/mymusic.mp3">  
  Your browser does not support the <code>audio</code> element.  
</audio>
```

- <video>

```
<video controls muted src="media/kittens.mp4" height="300"></video>
```

<iframe>

- HTML Inline Frame element
 - represents a nested browsing context
 - embedding another HTML page into the current one
 - many [security concerns](#)
- Examples:
 - Embedding a web page

```
<iframe src="index.html" frameborder="0" width="800"></iframe>
```
 - Embedding YouTube/Vimeo video, Google map, Spotify/SoundCloud playlist
- Note: embedding *twitter/instagram* is different

<svg>

- Scalable Vector Graphics (SVG)
 - an XML-based markup language for describing two-dimensional based vector graphics
 - SVG is, essentially, to graphics what HTML is to text.
- Let's find out the SVG logo of [CNN.com](https://www.cnn.com)

Two Types of Images - Raster vs. Vector

- **Raster images** are defined using a grid of pixels
 - `.bmp` , `.png` , `.jpg` , `.gif`
- **Vector images** are defined using algorithms
 - A vector image file contains shape and path definitions.
 - Check out the difference: [vector-versus-raster.html](https://www.dreamwidth.org/101771/101771.html)
- More Resources on SVG
 - [SVG tutorial](https://developer.mozilla.org/en-US/docs/Web/SVG) on MDN
 - [SVG examples](https://www.w3schools.com/svg/) on W3Schools

Questions?

