



HTML 5 demistified

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Un po' di storia

- 1991: HTML 1.0
- 1994: HTML 2.0
- 1996: CSS 1.0 + JavaScript
- 1997: HTML 4.0
- 1998: CSS 2.0
- 2000: XHTML 1.x
- 2002: Tableless Web Design
- 2005: AJAX
- 2009-2011: HTML 5 (draft)
- 2012-2014?: HTML 5 finale



Cos'è HTML 5

Evoluzione di HTML in chiave moderna

HTML 5 = HTML + CSS + Javascript



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Javascript (jQuery anyone? :))

Cercare elementi per classe:

```
document.getElementById('section1');
```

```
document.getElementsByTagName('div');
```

```
document.getElementsByClassName('section')
```

Selectors API:

```
document.querySelectorAll("ul li:nth-child(odd)");
```

```
document.querySelectorAll("table.test > tr > td");
```



Local storage

Storage permanente

Più performante rispetto ai cookie

Supporta scenari disconnessi (es: mail)

localStorage = persistent storage

sessionStorage = per tab storage

```
window.localStorage['value'] = 'value';
```

<http://dev.w3.org/html5/webstorage/>



Demo 01

Local storage & co



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Geolocation

Possibilità di identificare la posizione dell'utente

```
if (navigator.geolocation) {  
    navigator.geolocation.  
    getCurrentPosition(function(position) {  
        var lat = position.coords.latitude;  
        var lng = position.coords.longitude;  
    });  
}
```

- <http://dev.w3.org/geo/api/>



Demo 02

Geolocation



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HTML 5

Nuovi tag che danno un significato semantico alla pagina

Con HTML 5, dobbiamo davvero usare

HTML per il markup e la semantica

CSS per lo stile

Javascript per l'interazione

DocType semplificato

<!doctype html>

Elementi di accessibilità estesi a quasi tutti i tag



<header>

Identifica una intestazione

<body>

<**header**>

<**hgroup**>

<h1>Title</h1>

<h2>Subtitle</h2>

</**hgroup**>

</**header**>

...



<footer>

Identifica un footer

<footer>

<hgroup>

<h1>Title</h1>

<h2>Subtitle</h2>

</hgroup>

</footer>



<nav>

Segnala un menu di navigazione

```
<nav>
```

```
    <ul>
```

```
        <li>....</li>
```

```
        <li>....</li>
```

```
    </ul>
```

```
</nav>
```

...



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<section> e <article>

Identificano rispettivamente una sezione ed un contenuto

```
<section>  
  <article>  
    <header>  
      <h1>Title</h1>  
    </header>  
    <section>... </section>  
  </article>... (altri <article />)  
</section>
```



Demo 03

Nuovi tag



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Microformats

Servono ad inserire nell'HTML delle micro info

Es: una vcard per i contatti, un calendar, etc

```
<section class="vevent">
  <a class="url" href="siteUrl">siteUrl</a>
  <span class="summary">Descrizione</span>:
  dal <time class="dtstart" datetime="2010-12-16">16 dicembre</time>
  al
  <time class="dtend" datetime="2010-12-31">31</time>,
  a <span class="location">location</span>
</section>
```



Demo 04

Microformats



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Novità per le form

Attributo required, che consente la validazione

```
<style>
```

```
[required] { background-color: red; }
```

```
:invalid { background-color: red; }
```

```
</style>
```

```
<input type=text required />
```

* non supportati da IE 9



Nuovi data type per gli input

```
<input type="email" />
<input type="date" min="2010-01-01" max="2011-01-01" />
<input type="range" min="0" max="100" />
<input type="search" results="10" placeholder="Cerca..." />
<input type="tel" pattern="regex" />
<input type="color" placeholder="es: #333333" />
<input type="number" step="1" min="-5" max="10" />
* non supportati da IE 9
```



E poi...

```
<meter min="0" max="100" low="50" high="90"  
optimum="100">desc</meter>  
  
<progress>attendere prego</progress>  
  
<progress value="50" max="100">50%</progress>
```

* Supportati più o meno male da tutti i browser,
Opera a parte - standard non definitivo



Demo 05

HTML Forms 2.0



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Supporto nativo ad audio e video

```
<audio id="audioPlayer" src="audio.mp3" controls />
<video id="videoPlayer" src="movie.mp4" autoplay
controls />
```

Anche via Javascript:

```
document.getElementById("audioPlayer").muted =
false;
```

```
document.getElementById("videoPlayer").play();
```



Problemi

Attualmente non c'è un formato unico, ma è il tag (attributo type) che lo indica

H264 (mp4) e ogg vorbis i "raccomandati" dai vendor per i video

Mp3 e ogg vorbis per l'audio

Supporto

MP3/MP4: praticamente ovunque (Windows, iOS, Windows, Android, Linux, MacOSX, Windows Phone 7*)

WebM: Google

* non nel browser, tramite link



Demo 06

Audio e video nativi



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Canvas

Area in cui disegnare liberamente

```
<canvas id="canvas" width="900" height="300"></canvas>
```

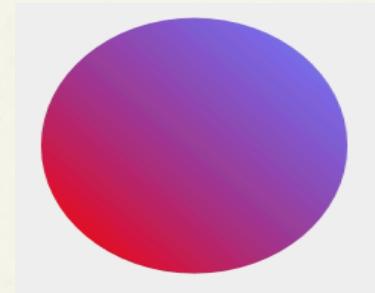
```
var canvasContext = document.getElementById("canvas").getContext("2d");
canvasContext.fillRect(250, 25, 150, 100);
canvasContext.beginPath(); canvasContext.arc(450, 110, 100, Math.PI * 1/2, Math.PI * 3/2);
canvasContext.lineWidth = 15;
canvasContext.lineCap = 'round'; canvasContext.strokeStyle = 'rgba(255, 127, 0, 0.5)';
canvasContext.stroke();
```

Acronimo di SaVaGe, è un linguaggio per definire grafica vettoriale

```
<svg>
```

```
  <circle id="myCircle" cx="50%" cy="50%"  
        r="100" fill="url(#myGradient)" />
```

```
</svg>
```





Demo 07

Canvas e SVG



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Nuovi selettori

```
.td:nth-child(even) { background:red; }  
.td:nth-child(odd) { background:black; }
```

Attributi

```
input[type="text"] {color:red;}
```

Negazioni

```
:not(.box) {color:white; }  
:not(span) {display:block; }
```



CSS

Allineamento

```
div {display: inline-block;}
```

Selettori (ancora)

```
h2:first-child { }
```

```
div.text > div {...}
```

```
h1 + header {...}
```

Sono gli stessi selettori utilizzati da jQuery (che usa selettori CSS 3)



Supporto tipografico

Font in formato OTF (evoluzione di True Type)

<http://en.wikipedia.org/wiki/OpenType>

```
@font-face {  
    font-family: 'MyFont';  
    src: url(MyFont.otf);  
}
```



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Troncamento di testo

Già supportato da IE, diventa parte delle specifiche:

```
.text {text-overflow:ellipsis;}
```



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Opacità

Già supportato da IE, diventa parte delle specifiche:

```
.text { opacity:0.7; }
```



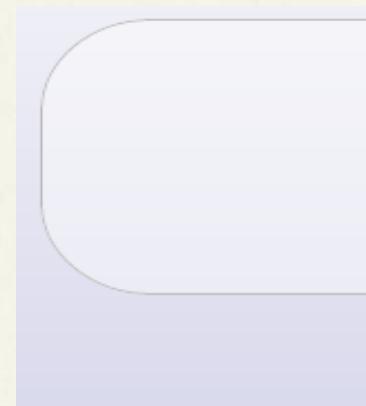
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Bordi arrotondati

Attraverso l'attributo border-radius

```
.border{ border-radius:50px;}
```





Demo 08

CSS e tipografia



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HTML 5 è tanto altro ancora!

Regole da tenere a mente:

Dividere la pagina in area funzionali

Utilizzare i nuovi tag, dove serve:

article, aside, audio, canvas, command, datalist, details, embed,
figcaption, figure, footer, header, hgroup, keygen, meter, nav,
output, progress, rp, rt, ruby, section, summary, time, video,
wbr

Ricordarsi di fare un "dolce" downgrade

Es: video con tag, con dentro flash/silverlight player

Essendo HTML "con steroidi", i browser vecchi
generalmente riescono a digerirlo

A meno che non si utilizzino funzionalità avanzate



Contatti

Grazie per il vostro tempo!

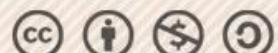
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