

# Web Content Design

<GIT 237>

## Lecture: Typography



Hello and welcome to this lecture on Typography

## CSS2.1 Web Typography

	Font Properties	Text Properties
Description	Mostly Decorative	Mostly Structural
Properties	font-family font-size font-style font-variant font-weight	color letter-spacing line-height text-align text-decoration text-indent text-transform word-spacing
Reference	<a href="http://www.w3schools.com/css/css_font.asp">http://www.w3schools.com/css/css_font.asp</a> <a href="http://www.w3.org/TR/CSS2/fonts.html#font-family-prop">http://www.w3.org/TR/CSS2/fonts.html#font-family-prop</a>	<a href="http://www.w3schools.com/css/css_text.asp">http://www.w3schools.com/css/css_text.asp</a> <a href="http://www.w3.org/TR/CSS2/text.html">http://www.w3.org/TR/CSS2/text.html</a>



### Web Typography

On the web, typography is styled in CSS with the font & text properties. You might be wondering, what's the difference? Aren't they kinda the same thing? Well, yes and no. In the case of CSS, font mostly describes decorative traits like the size and style while text mostly describes the structural traits like spacing and alignment. There are some debatable traits like color, which seems more decorative, but in general, font is decorative and text is structural.

I have included some reference links here as well. Remember that on the w3schools website you can try out all the properties and values from this lecture. I highly recommend trying these out for yourself.

# Font Properties & Values

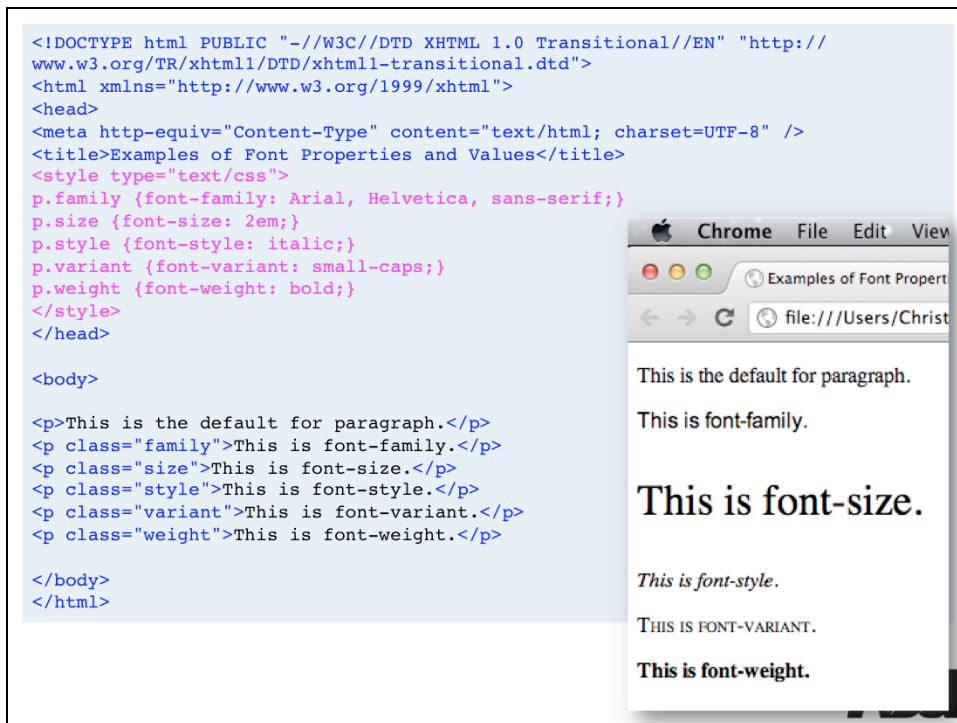
Font Properties	Font Property Values
font-family	<b>Generic:</b> serif, sans-serif, monospace, cursive, fantasy <b>Fonts:</b> FontName, "Font Name with Spaces" <b>Stack:</b> FontName, "Font Name with Spaces", serif <a href="http://cssfontstack.com/">http://cssfontstack.com/</a>
font-size	<b>Pixel:</b> absolute (specified size) <b>em:</b> relative (based on surrounding elements) <b>Percent:</b> % <b>Keywords:</b> xx-small, x-small, small, medium, large, x-large, xx-large
font-style	<b>Keywords:</b> inherit, italic, normal, oblique
font-variant	<b>Keywords:</b> inherit, normal, small-caps
font-weight	<b>Keywords:</b> inherit, normal, bold, bolder, lighter <b>Thickness:</b> 100, 200, 300, 400, 500, 600, 700, 800, 900



## Font Properties

Here are the font properties listed with their possible values.

This should be a review of what you already knew coming into this course, but if it's not, check out the w3schools website to try out these font properties and values.



Here are some examples of font properties and values. I'm using embedded CSS and I have a 6 paragraphs that I've given some classes to so I can target each differently.

In the first line, I have the default paragraph style so you can see the difference in the other examples.

In the second line, I've applied a font family with a stack that includes Arial, and if that isn't available, then Helvetica and if that isn't available, then the default sans-serif font. In this case, I have Arial on my machine so that is what renders. As you can see the default was a serif font, so by designating Arial in my font family property, there is a noticeable change.

In the third line, I have applied the font-size of 2 em, which is twice the size of the default.

In the forth line, I have applied the font-style of italic.

In the fifth, the font variant of small caps. Note if there is no small-caps version of your font, the browser will scale it so results may vary.

In last line, I have applied the font weight of bold.

# Text Properties & Values

Text Properties	Text Property Values
color background-color	<b>Keywords:</b> white; black ( <a href="http://www.w3schools.com/cssref/css_colornames.asp">http://www.w3schools.com/cssref/css_colornames.asp</a> ) <b>HEX:</b> #FFFFFF; #000000 ( <a href="http://www.w3schools.com/cssref/css_colorsfull.asp">http://www.w3schools.com/cssref/css_colorsfull.asp</a> ) <b>RGB:</b> rgb(255, 255, 255); rgb(0,0,0) ( <a href="http://www.w3schools.com/cssref/css_colors.asp">http://www.w3schools.com/cssref/css_colors.asp</a> )
letter-spacing (tracking)	<b>Unit:</b> px, em, %
line-height (leading)	<b>Keyword:</b> normal, inherit <b>Length:</b> px, pt, cm... <b>Multiple:</b> 1, 1.5, 2 ... <b>Percent:</b> %
text-align	<b>Keywords:</b> right, left (default), center, justify
text-decoration	<b>Keywords:</b> inherit, none, blink, line-through, overline, underline
text-indent	<b>Unit:</b> px, em, %
text-transform	<b>Keywords:</b> inherit, none, capitalize, lowercase, uppercase
word-spacing (kerning, sort of)	<b>Unit:</b> px, em, %



## Text Properties & Values

Here's a chart of the basic text properties and their possible values.

Again, this should be a review of what you knew coming into this course.

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/
TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
<title>Examples of Text Properties and Values</title>
<style type="text/css">
p.color {color:#FF0000;}
p.background-color {background-color:#FF0000;}
p.letter-spacing {letter-spacing:1em;}
p.line-height {line-height:2em; background-color:#CCCCC}
p.text-align {text-align:center;}
p.text-decoration {text-decoration:underline;}
p.text-indent {text-indent:5em;}
p.text-transform {text-transform:uppercase;}
p.word-spacing {word-spacing:3em;}
</style>
</head>
<body>
<p>This is the default for paragraph.</p>
<p class="color">This is color.</p>
<p class="background-color">This is background-color.</p>
<p class="letter-spacing">This is letter-spacing.</p>
<p class="line-height">This is line-height with a background color so you can see
it.</p>
<p class="text-align">This is text-align.</p>
<p class="text-decoration">This is text-decoration.</p>
<p class="text-indent">This is text-indent.</p>
<p class="text-transform">This is text-transform.</p>
<p class="word-spacing">This is word-spacing.</p>
</body></html>

```

Here are some examples of text properties and values. I'm using embedded CSS and I have a 10 paragraphs that I've given some classes to so I can target each differently.

In the first line, I have the default paragraph style so you can see the difference in the other examples.

In the second line, I've applied a color of red.

In the third line, I've applied the background color of red.

The forth line shows letter spacing,

And the fifth is line height with a background color so you can see the line height.

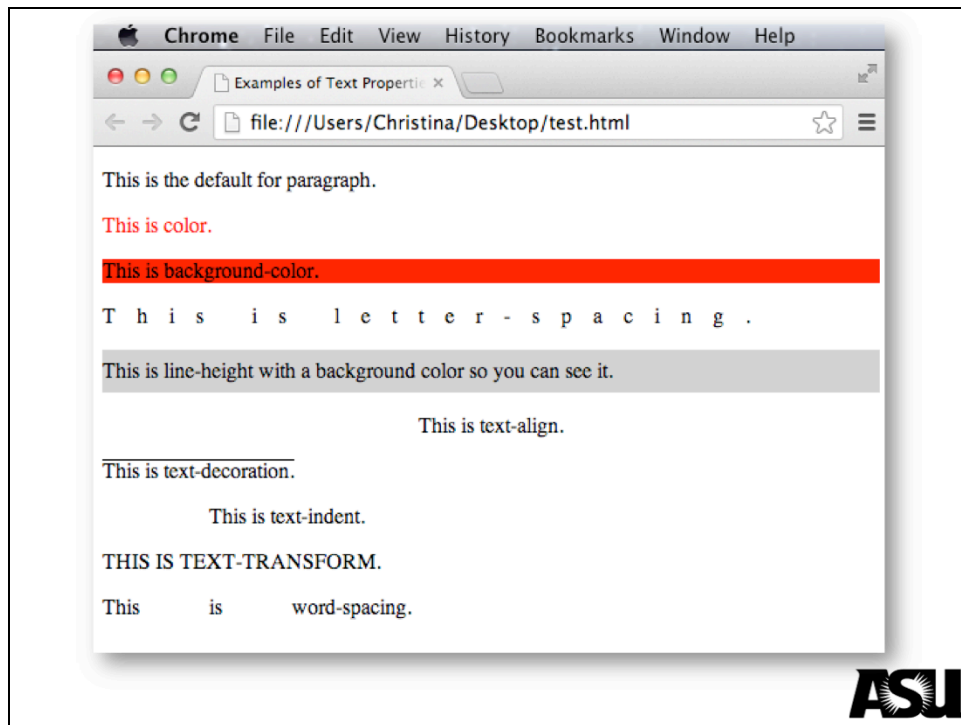
In the sixth line, I've applied center for text-align.

In the seventh, I've applied overline for a text-decoration.

Line 8 has a text –indent.

Line 9 has a text transform of capitalize.

And finally the last line show word spacing.



And here's how those text properties and values will render in the Chrome browser. If you practice these on your own, your default results may vary depending of the browser that you use.

## Typography Tips

- Browser has default style, overwrite it
- Readability is key
  - Use bullets or numbered lists, pull quotes, columns and side bars
  - Contrast between foreground and background
- Leverage what the user know
  - Hierarchy displayed with size
  - Emphasis (italics) = stressed
  - Strong (bold) = important
  - Underline= Hyperlink



### Typography Tips

Every browser has a default style. That's why your HTML documents have style even without the CSS linked to them. You are overwriting that style with your CSS.

Readability is the key. Use bulleted or numbered list, pull quotes, columns and side bars to break up text. Be sure to add sufficient contrast between your foreground and background.

Leverage what users already know. Document hierarchy is usually structured with size. The bigger, the more important. Emphasis or italics is information that is being stressed and strong or bold means the text is important. Underlined text is a hyperlink. This is true for visual and non-visual browsers.



## CSS3

- Newest specification
- Not fully implemented
  - Not a complete
  - Released piece-by-piece
  - Supports a rapidly changing environment
- Use it when it meets your users needs
  - OK for class
  - Have CSS2.1 backups

Check CSS Browser/Version Compatibilities  
<http://www.quirksmode.org/css/selectors/>



CSS3 is the newest specification rules from the W3C.

Some of it is standard and some is not. Each rule is becoming standard one-by-one based on need in order to support the web's rapidly changing environment.

Have your user in mind when you implement CSS3 styles.

If you know what browsers and version your users have, then you can add what rules are appropriate.

Of course, for class assignments, you're fine to use CSS3 but always have a back-up.

# Progressive Enhancement

- Make a solid style that works
- Enhance it with the latest
- Test for optimization

Understanding Progressive Enhancement  
<http://alistapart.com/article/understandingprogressiveenhancement>



Progressive enhancement is a design practice that starts with solid CSS standards that work across all browsers and versions.

Once you have established a solid style, then you enhance with the latest and greatest methods.

Styles should ONLY enhance content; they should not be done just because they can be.

Because multiple styles will target content, you will need to test for optimization.

Browser load time should not suffer for enhanced style.

## Fallbacks, Fixes and Detection

- Force IE to render CSS3  
<http://css3pie.com>
- Modernizr <http://modernizr.com/>
- Vendor Prefixes
  - -moz- , -ms-, mso-, -webkit-
  - Or eCSStender <http://ecsstender.org>
- CSS3 Generator <http://css3generator.com>



### Fallbacks, Fixes and Detection

There are tricks and hacks to use CSS3 when it is not supported in the browser.

CSS Pie helps with IE, Modernizr can help across platforms.

Using vendor prefixes is sometimes the only trick you need to make CSS3 work; you just need to add the prefix before the CSS property.

Extender can call the prefixes for you and CSS3 generator can write it all out for you.

## Resources and References

- World Wide Web Consortium (W3C)
  - <http://www.w3.org/Style/CSS/current-work>
  - Timeline
  - Recommendations
- W3Schools CSS Reference Sheet
  - <http://www.w3schools.com/cssref/>
  - Complete listing of **ALL** CSS properties and which standard they were released



Check out these resources and references for more news, information, and reference sheets for CSS3.

## Web Fonts

- Beyond the traditional web supported fonts with @face-face
- Traditional Font File Formats
  - True Type Format (TTF)
  - Open Type Format (OTF)
- Web Font File Formats
  - Embedded Open Type (EOT)
  - Web Open Font Format (WOFF)
  - Smaller file sizes



Web Fonts take us beyond the traditional web supported fonts with @font-face.

Traditional font file formats are true type format (ttf) and open type format (otf).

But now we have font types specifically for the web, such as embedded open type (eot) and web open font format (woff).

These files have a smaller size that is better for the web.

## Web Fonts

- Fonts are not free!
    - Licensing issues
  - Font Hosts
    - Typekit <http://typekit.com>
    - Font Squirrel <http://www.fontsquirrel.com>
    - Google Fonts <http://www.google.com/fonts>
1. Download a font from online
  2. Upload it to your site
  3. Reference it in your CSS



Fonts are not free! This is as true for web as it is for print.

One reason it took so long for more fonts to be on the web is that the licensing was a problem.

Now, we have font hosts such as TypeKit, Font Squirrel and Google fonts to help.

First you download a font from online (after paying or obtaining a creative commons license), upload it to your site and then reference and define it on your CSS.

## @font-face

- Reference/define at the top of the CSS

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

- Use it in the CSS

```
selector {font-family: fontName;}
```

More on Syntax

<http://paulirish.com/2009/bulletproof-font-face-implementation-syntax>



At the top of your CSS, reference and define your font. The font-family value can be any name that you decide on for the font.

Keep in mind that you need to put quotation marks around a name with blank spaces in it.

The src value is the path to your downloaded font. In other words, you reference that folder(s) and file name where you uploaded the file to your web server.

Then, in your style, just add the name you defined in the font-family's value.

## @face-face Troubleshooting

- Obtain the license for the font
- Font file format for all browsers
  - FontSquirrel Generator  
<http://www.fontsquirrel.com/tools/webfont-generator>
- Add a fallback (font stack)
- Reference the correct path to the font files on your web server
- Be aware of download times

Try it out!

[http://www.w3schools.com/cssref/tryit.asp?filename=trycss3\\_font-face\\_rule](http://www.w3schools.com/cssref/tryit.asp?filename=trycss3_font-face_rule)



### Troubleshooting

You need to make sure you have the legal rights to use a font.

Make sure you have all the font file formats that you will need for each browser. Font Squirrel can generate this for you if you need it.

Just in case, you should have a backup font stack.

Don't forget to reference the correct path to the font-files on your web server.

Be aware of download times, you don't want loading time to suffer just for a font.



# Text Shadows

- Syntax

```
selector {text-shadow: x-offset y-offset blur color;}
```

- Offset Values

- Positive = right/down
- Negative = left/up

- Blur Value

- Higher number = bigger blur

Try it out!

[http://www.w3schools.com/cssref/css3\\_pr\\_text-shadow.asp](http://www.w3schools.com/cssref/css3_pr_text-shadow.asp)



Text shadows are widely supported by browsers.

The property is text dash shadow and the vale string represents the x offset, the y offset, the blur and the shadow color.

Positive offset value move right and down, while negative values move left and up.

The higher the number of the blur value, the bigger the blur.

## Text Shadow Examples

- Text Shadow

```
selector {text-shadow: 7px 7px 10px #999;}
```

- Outer glow = add multiple shadows

```
selector {text-shadow: 0 0 2px #fff, 0 0 5px  
#ddd, 0 0 10px #ccc;}
```

- Emboss Effect = no y value, no blur

```
selector {text-shadow: 2px 0 0 #111;}
```



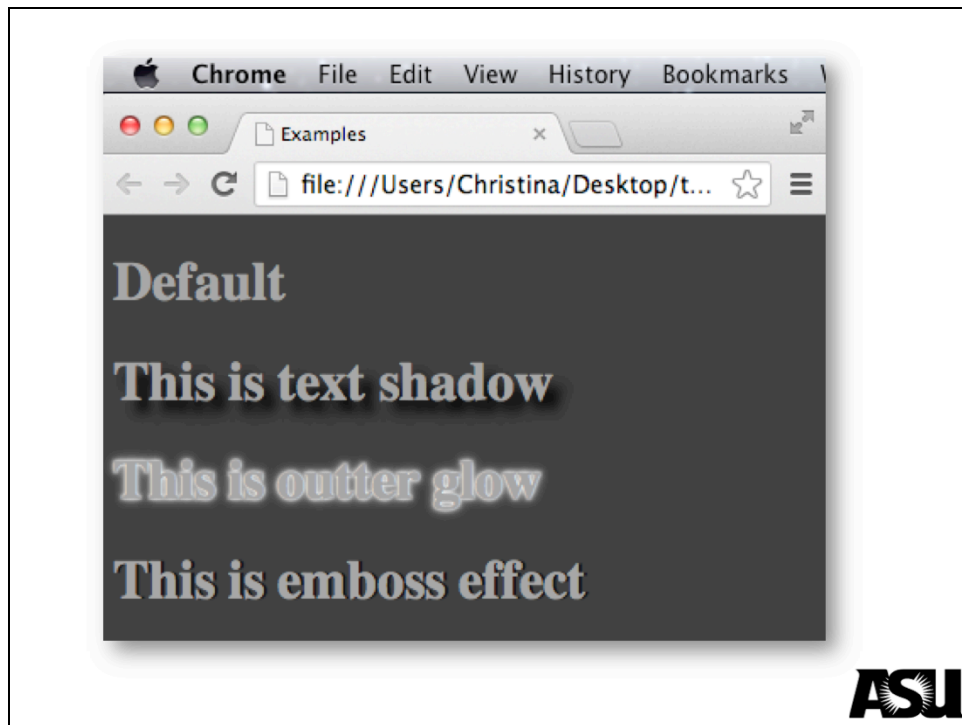
You can create multiple effects with the text-shadow property.

An outer glow just has multiple values separated with a comma and an emboss effect can be achieved with no y value and no blur.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html;
charset=UTF-8" />
<title>Examples</title>
<style type="text/css">
body {background-color:#333; color:#999;}
.shadow {text-shadow: 7px 7px 10px #000;}
.glow {text-shadow: 0 0 2px #fff, 0 0 5px #ddd, 0 0 10px #ccc;}
.emboss {text-shadow: 2px 0 0 #111;}
</style>
</head>

<body>
<h1>Default</h1>
<h1 class="shadow">This is text shadow</h1>
<h1 class="glow">This is outter glow</h1>
<h1 class="emboss">This is emboss effect</h1>
</body>
</html>
```

Here is some HTML with embedded CSS style for these text-shadow effects. Please use the lecture PDF to see it in detail.



And here is how that page would render in the browser.

## Multi Column Text

- Syntax

```
selector {column-count: #-of-columns;}
```

- Vendor Prefixes

- Firefox
  - moz-column-count:
- Safari and Chrome
  - webkit-column-count:

Try it out!

[http://www.w3schools.com/cssref/css3\\_pr\\_column-count.asp](http://www.w3schools.com/cssref/css3_pr_column-count.asp)



Multi column text isn't as supported as text shadow, but can easily be added with vendor prefixes.

The property is column dash count and the value is the number of columns you want.

## Multi Column Width and Gap

- Width

```
selector {column-width: value;}
```

- Gap

```
selector {column-gap: value;}
```

Try it out!

[http://www.w3schools.com/cssref/tryit.asp?filename=trycss3\\_column-width](http://www.w3schools.com/cssref/tryit.asp?filename=trycss3_column-width)

[http://www.w3schools.com/cssref/tryit.asp?filename=trycss3\\_column-gap](http://www.w3schools.com/cssref/tryit.asp?filename=trycss3_column-gap)



You can specify the width of the columns and they will all be the same size.

And you can specify the gap between the columns.

## Multi Column Rule

- Rule Style/Color/Width  
selector {column-rule-style: value;}  
selector {column-rule-color: value;}  
selector {column-rule-width: value;}

Try it out!

[http://www.w3schools.com/cssref/tryit.asp?filename=trycss3\\_column-rule-style](http://www.w3schools.com/cssref/tryit.asp?filename=trycss3_column-rule-style)

[http://www.w3schools.com/cssref/tryit.asp?filename=trycss3\\_column-rule-color](http://www.w3schools.com/cssref/tryit.asp?filename=trycss3_column-rule-color)

[http://www.w3schools.com/cssref/tryit.asp?filename=trycss3\\_column-rule-width](http://www.w3schools.com/cssref/tryit.asp?filename=trycss3_column-rule-width)



You can also add a rule inside the gap of the columns. This works very similar to borders and in fact the style values are the same.

You can also give that rule a color and a width.

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/
TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
<title>Examples</title>
<style type="text/css">
p {column-count:2;
    -webkit-column-count:2;
    column-width: 200px;
    -webkit-column-width: 200px;
    column-gap: 15px;
    -webkit-column-gap: 15px;
    column-rule-style: dotted;
    -webkit-column-rule-style: dotted;
    column-rule-color: #990033;
    -webkit-column-rule-color: #990033;
    column-rule-width: 2px;
    -webkit-column-rule-width: 2px;}
</style>
</head>
<body>
<h1>Heading</h1>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent purus eros,
pulvinar et rutrum ullamcorper, ullamcorper eu nunc. Fusce eu augue velit. Fusce
accumsan vitae turpis sed feugiat. Praesent risus mi, vehicula a placerat eget,
gravida ac lectus. Suspendisse potenti. Pellentesque auctor molestie feugiat.
Pellentesque sollicitudin pellentesque magna a pharetra. Lorem ipsum dolor sit amet,
consectetur adipiscing elit. Phasellus adipiscing placerat dolor, vitae molestie
turpis hendrerit ut. In porttitor et eros non fermentum. </p>
</body>

```

Here is some HTML with embedded CSS to illustrate these column properties. Note that I have added the CSS property and it's equivalent for webkit since I'll render this content in Chrome.





And here is what that looks like in the Chrome browser.

# Web Typography

## CSS2.1

- Font
  - Properties
  - Values
- Text Properties
  - Properties
  - Values
- Tips

## CSS3

- @font-face
- text-shadow
- column-count
  - Width
  - Gap
  - Rule
    - Style
    - Color
    - Width



This lecture has been about web typography.

I covered font and text properties and values as well as CSS3 advances such as @font-face, text-shadow and column-count.

This concludes the lecture, have a great week!