

# Where Web Typography Goes to Next

Richard Rutter

Sunday, 13 March 2011

I'm cofounder of [Fontdeck.com](http://Fontdeck.com), a webfonts service.

I'm going to talk a lot about what we have to look forward to, and why web typography is going to go from strength to strength over the next few years.

I've seen the future and its 326 ppi.



apple.com

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I've seen the future and its 326 ppi.  
We've all seen his res displays on the iPhone 4 and other devices.  
The real excitement will be when this hits iPad (iPad 3 this Christmas maybe?)  
And then Macbook... and iMac... and if Apple can do it then other manufacturers will do too.

Why is hi res important? It shows the little details that are so important in typography.



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**Most of the content on the web consists of words.**

If our web of words is to be read, and for that reading experience to be good, to be great, then its the details that will count.

Thats what typography itself is all about: the little details adding up to be greater than the sum of the parts.

I'm going to go through some of the upcoming CSS3 features that provide more control over the details.

Regular      Adelle  
**Bold**      **Adelle**

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Lets start with some CSS 1. Font-weight. Here's regular and bold of Adelle, a lovely slab serif design by TypeTogether.

Light	Adelle
Regular	Adelle
SemiBold	Adelle
<b>Bold</b>	Adelle
<b>ExtraBold</b>	Adelle
<b>Heavy</b>	Adelle

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Not just regular and bold, but also light, semibold, extrabold, heavy.

6 different weights.

```
h1 {  
    font-family: "Adelle", Cambria, Georgia, serif;  
    font-weight: bold;  
}
```

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You'll be familiar with this: using `font-weight` with the `bold` keyword.

```
h1 {  
    font-family: "Adelle", Cambria, Georgia, serif;  
    font-weight: 200;  
}
```

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But to set a weight lighter than regular, or indeed heavier than bold, we need to resort to a numerical scale.

# Values for font-weight property

- 100 Ultra Light, Extra Light
- 200 Light, Thin
- 300 Book
- 400 *Normal*, Regular
- 500 Medium
- 600 Demi Bold, Semi Bold
- 700 **Bold**
- 800 Black, Extra Bold
- 900 Ultra Bold, Fat, Heavy

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Scale roughly matches to this. Normal is 400 and Bold is 700 but otherwise not hard and fast – requires experimentation.

Should be the present – specified in CSS1 in 1996 – but still lies partially in the future.

For OS-installed fonts, these are not really supported properly in any version of Internet Explorer or Opera.

In Firefox and Safari the support is inconsistent.

## Opera 11

100 · Adelle Regular  
200 · Adelle Regular  
300 · Adelle Regular  
400 · Adelle Regular  
500 · Adelle Regular  
**600 · Adelle Bold**  
**700 · Adelle Bold**  
**800 · Adelle Bold**  
**900 · Adelle Bold**

**600 · Adelle Bold**  
**800 · Adelle Bold**

Opera 11

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Opera 11 and Internet Explorer.

## Firefox 3.6

100 · Adelle Light  
200 · Adelle Light  
300 · Adelle Light  
400 · Adelle Regular  
500 · Adelle Regular  
600 · Adelle Semibold  
**700 · Adelle Bold**  
**800 · Adelle Heavy**  
**900 · Adelle Heavy**

**600 · Adelle Heavy**

**800 · Adelle Heavy**

Firefox 3.6

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100–300 Light – as expected.

In Firefox the Extrabold is missed out for 800 and Heavy is used instead.

## Safari 5

100 · Adelle Light

200 · Adelle Light

300 · Adelle Light

400 · Adelle Regular

500 · Adelle Regular

600 · Adelle Semibold

**700 · Adelle Bold**

**800 · Adelle ExtraBold**

**900 · Adelle ExtraBold**

**900 · Adelle ExtraBold**

**800 · Adelle ExtraBold**

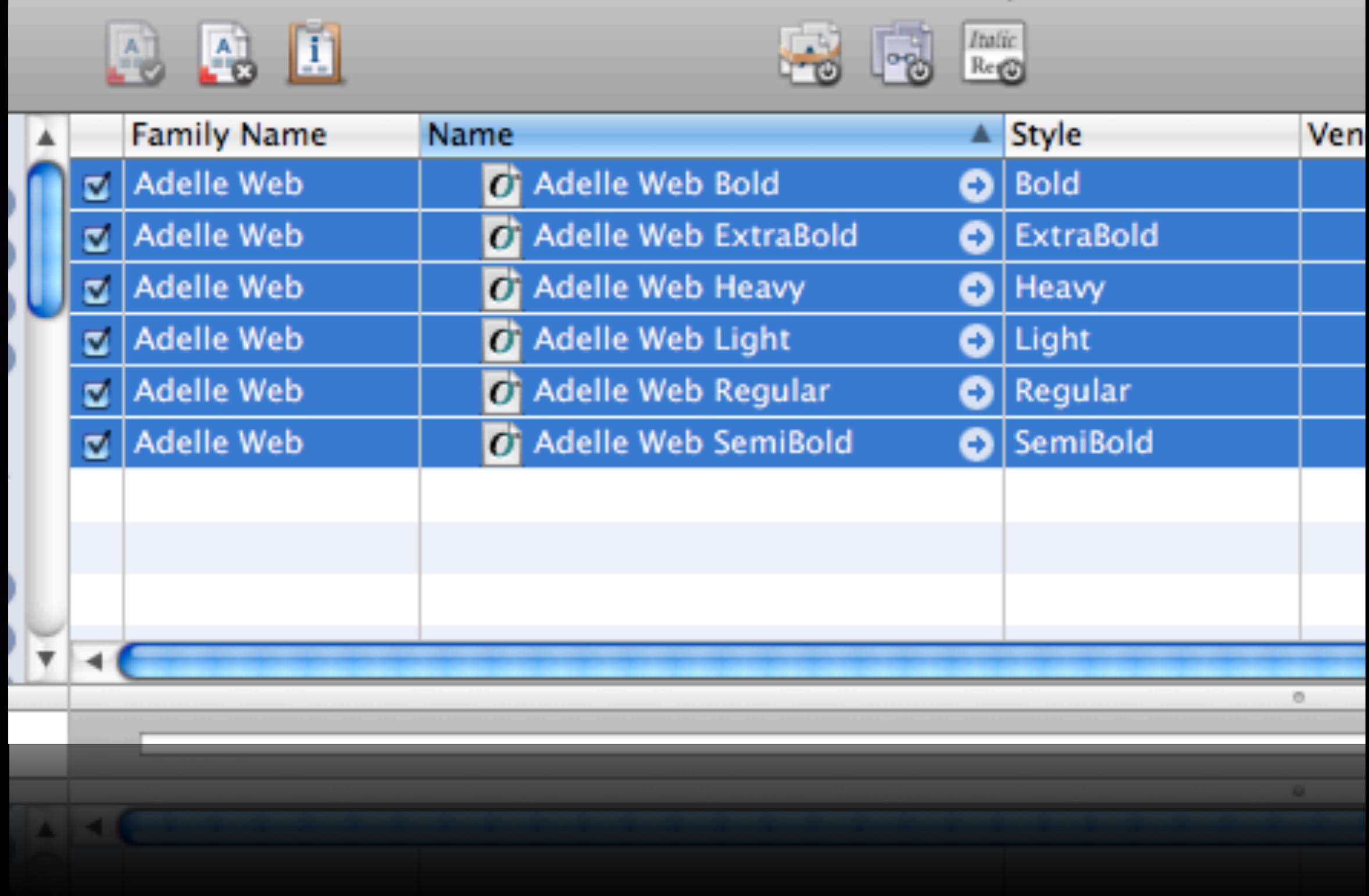
Safari 5

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Safari doesn't use the Heavy but uses the ExtraBold instead

So maybe we might get consistency in the future, but I doubt it.  
It's not all down to the browser, sometimes its down to the font maker.

# FontExplorer X Pro



The screenshot shows the FontExplorer X Pro interface with a toolbar at the top featuring icons for file operations and search. Below the toolbar is a table listing font variants. The columns are labeled 'Family Name', 'Name', 'Style', and 'Vendor'. The 'Family Name' column contains six entries all labeled 'Adelle Web'. The 'Name' column lists specific weights: 'Adelle Web Bold', 'Adelle Web ExtraBold', 'Adelle Web Heavy', 'Adelle Web Light', 'Adelle Web Regular', and 'Adelle Web SemiBold'. The 'Style' column shows icons for each weight: a bold circle for Bold, an extra bold circle for ExtraBold, a heavy circle for Heavy, a light circle for Light, a regular circle for Regular, and a semi bold circle for SemiBold.

Family Name	Name	Style	Ven
Adelle Web	Adelle Web Bold	Bold	
Adelle Web	Adelle Web ExtraBold	ExtraBold	
Adelle Web	Adelle Web Heavy	Heavy	
Adelle Web	Adelle Web Light	Light	
Adelle Web	Adelle Web Regular	Regular	
Adelle Web	Adelle Web SemiBold	SemiBold	

Adelle in FontExplorer X

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Adelle family name is the same “Adelle Web” for each weight.

## FontExplorer X Pro

The screenshot shows the FontExplorer X Pro interface. At the top, there are icons for New, Open, Save, and Import. On the right, there are buttons for Find, Sort, and a magnifying glass icon. A checkmark icon is located in the top right corner.

The main window displays a table of font variants:

Family Name	Name	Style	Vendor
Bliss 2	Bliss2	Regular	Jere
Bliss 2 Bold	Bliss2-Bold	Regular	Jere
Bliss 2 ExtraBold	Bliss2-ExtraBold	Regular	Jere
Bliss 2 Heavy	Bliss2-Heavy	Regular	Jere
Bliss 2 Light	Bliss2-Light	Regular	Jere
Bliss 2 Medium	Bliss2-Medium	Regular	Jere

Below the table, a preview window shows two lines of text: "<fontname> Why Pangolins Dream of Quiche" and "<fontname> Why Pangolins Dream of Quiche".

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Bliss has six weights as well, but each has been given a different family name.

From a CSS perspective they are viewed as different fonts so font-weight has no chance.

From a general website perspective this is largely academic because the fonts won't be installed, but different story for a controlled environment like an intranet.

<b>Extra condensed</b>	Clarendon
<b>Condensed</b>	Clarendon
<b>Regular</b>	Clarendon
<b>Expanded</b>	Clarendon
<b>Extra expanded</b>	Clarendon

```
h1 {  
    font-family: "Clarendon", Georgia, serif;  
    font-stretch: condensed;  
}
```

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But what about a condensed font? We use the font-stretch property.

Originally introduced in CSS 2, dropped from CSS 2.1 but now back in the Fonts Module of CSS 3.

# Values for font-stretch property

Ultra Condensed

Extra Condensed

Condensed

Semi Condensed

**Normal**

Semi Expanded

Expanded

Extra Expanded

Ultra Expanded

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Why couldn't they call it font-width?  
I hope browsers don't synthesise stretched fonts.

No support apart from Firefox 3.6. No word from the others yet.

# Clarendon URW

font-stretch	rendering
ultra-condensed	<b>Why pangolins dream</b>
extra-condensed	<b>Why pangolins dream</b>
condensed	<b>Why pangolins dream</b>
semi-condensed	<b>Why pangolins dream</b>
normal	<b>Why pangolins dream</b>
semi-expanded	<b>Why pangolins dream</b>
expanded	<b>Why pangolins dream</b>
extra-expanded	<b>Why pangolins dream</b>
ultra-expanded	<b>Why pangolins dream</b>

μττα-εκβανδερ	Μυλησανγολινς δρεμι
εκτα-εκβανδερ	Μυλησανγολινς δρεμι

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That support in Firefox 3.6 is problematic. Not always its fault.

Despite having 5 different widths installed, the Clarendon didn't work because the other widths had different Family Names, as we just saw when using font-weight with Bliss.

Lets pick a different font. Helvetica Neue – installed on all your Macs in various weights and widths.

# Helvetica Neue

font-stretch	rendering
ultra-condensed	Why pangolins dream
extra-condensed	Why pangolins dream
condensed	<b>Why pangolins dream</b>
semi-condensed	Why pangolins dream
normal	Why pangolins dream
semi-expanded	Why pangolins dream
expanded	Why pangolins dream
extra-expanded	Why pangolins dream
ultra-expanded	Why pangolins dream

μττα-εκβανδερ  
εκτα-εκβανδερ

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Interesting. We have a condensed font appearing. Albeit a bold one.

Lets see what fonts are actually installed.

Name	Style	Vendor
Helvetica Neue	-	Linotype
Helvetica Neue	Regular	Linotype
Helvetica Neue Bold	Bold	Linotype
Helvetica Neue Bold Italic	Bold Italic	Linotype
Helvetica Neue Condensed Black	Condensed Black	Linotype
Helvetica Neue Condensed Bold	Condensed Bold	Linotype
Helvetica Neue Italic	Italic	Linotype
Helvetica Neue Light	Light	Linotype
Helvetica Neue Light Italic	Light Italic	Linotype
Helvetica Neue UltraLight	UltraLight	Linotype
Helvetica Neue UltraLight Italic	UltraLight Italic	Linotype

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So there's lots of regular weights but only a condensed black and condensed bold. Excluding italics, 6 different styles.

What happens if we combine font-weight and font-stretch?

# Helvetica Neue

	font-weight			
font-stretch	200	normal	bold	800
ultra-condensed	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>
extra-condensed	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>
condensed	<b>Pangolins</b>	<b>Pangolins</b>	<b>Pangolins</b>	<b>Pangolins</b>
semi-condensed	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>
normal	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>
semi-expanded	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>
expanded	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>
extra-expanded	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>
ultra-expanded	Pangolins	Pangolins	<b>Pangolins</b>	<b>Pangolins</b>

ultra-expanded  
extra-expanded

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Oh. Not quite sure what's going on there.

This table implies 36 different styles. As we've seen there are only six, not including italics. The browser has to pick something, CSS 3 specifies an algorithm for that.

As closely as possible, supposed to match font-stretch first, then font-style (not relevant here) then font-weight.

Condensed row is correct, so is normal. But the others are wrong.

So all in all, not good. Or is it?

# Font Linking

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So all in all, not good. Or is it?

Font Linking is the future, and it's with us already – in one way or another there's support in every modern browser.

Essentially you stick a font file on a server and a website links to it.

The font is downloaded and used to render the page (the font isn't installed).

And it provides a way to consistently display precisely the font you want in every browser.

It solves the font-weight and font-stretch problems. Let's see how.

```
@font-face {  
    font-family: "Clarendon";  
    src: url("clarendon-nar-eb.woff");  
}
```

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This is what it looks like. So-called @font-face rules.

```
@font-face {  
    font-family: "Clarendon";  
    src: url("clarendon-nar-eb.woff");  
    font-weight: 800;  
    font-stretch: condensed;  
}
```

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We can link to the font we actually want to use AND specify its weight and width.

# Clarendon URW Extra Bold

font-stretch	rendering
ultra-condensed	<b>Why pangolins dream</b>
extra-condensed	<b>Why pangolins dream</b>
condensed	<b>Why pangolins dream</b>
semi-condensed	<b>Why pangolins dream</b>
normal	<b>Why pangolins dream</b>
semi-expanded	<b>Why pangolins dream</b>
expanded	<b>Why pangolins dream</b>
extra-expanded	<b>Why pangolins dream</b>
ultra-expanded	<b>Why pangolins dream</b>

πτερ-εκβανδερ  
εκτε-εκβανδερ

**Μηλ ιεπιλοήνς φιεστι**  
**Μηλ ιεπιλοήνς φιεστι**

Extrabold in different widths

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Yay!

Extrabold Clarendon in the 5 different widths we saw earlier.

But remember only Firefox supports font-stretch right now.

And IE doesn't support font-weight either in @font-face rules.

Gah!

But it can still work!

```
@font-face {  
    font-family: "Clarendon Narrow Extrabold";  
    src: url("clarendon-nar-eb.woff");  
    font-weight: 800;  
    font-stretch: condensed;  
}
```

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First of all you need to specify a different font family for each different style.

Painful? Yes. But it works.

# Browser support for Webfonts

Browser	File types supported
<b>Internet Explorer 4</b>	Embedded OpenType (EOT)
<b>Internet Explorer 9</b>	EOT, WOFF
<b>Safari 3.1</b>	TrueType, OpenType, SVG
<b>Safari 5</b>	TrueType, OpenType, SVG, WOFF
<b>Opera 10</b>	TrueType, OpenType
<b>Opera 11.1</b>	TrueType, OpenType, WOFF
<b>Firefox 3.1</b>	TrueType, OpenType
<b>Firefox 3.6</b>	TrueType, OpenType, WOFF
<b>Chrome beta 4</b>	TrueType, OpenType, SVG
<b>Mobile Safari iOS 3.2</b>	SVG
<b>Mobile Safari iOS 4.2</b>	SVG, TTF

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And then theres all these complications.  
Different browsers support different fonts file types.

```
@font-face {  
    font-family: "Clarendon Narrow Extrabold";  
    src: url(clarendon-nar-eb.eot);  
    src: url(clarendon-nar-eb.eot?iefix) format(eot),  
        url(clarendon-nar-eb.woff) format(woff),  
        url(clarendon-nar-eb.ttf) format(truetype),  
        url(clarendon-nar-eb.svg#font) format(svg);  
    font-weight: 800;  
    font-stretch: condensed;  
}
```

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Then specify all the different file formats.

(this latest version developed by Ethan Dunham of Fontsquirrel)

why two src's? The first one is for IE9 in IE7 and IE8 compatibility mode.

One nice thing about webfont services, they take all this pain away for you.

# dConstruct 2010

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TOM COATES

## JOHN GRUBER THE AUTEUR THEORY OF DESIGN

Why is it that some projects never rise to the level of the talent of those who made it? It's oft said regarding good work that the whole is greater than the sum of its parts. But sometimes the whole is *less* than the sum of its parts—a company or team comprised of good people, but yet which produces work that isn't good.

In his session, John will explain his theory to explain how this happens—in both directions—based on the longstanding collaborative art of filmmaking. Learn how to recognise when a project is doomed to mediocrity, and, more importantly, how best to achieve collaborative success.



John Gruber writes and publishes [Daring Fireball](#), a somewhat popular weblog ostensibly focused on Mac and web nerdery. He has been producing Daring Fireball as a full-time endeavour since April 2006.

He lives in Philadelphia with his wife and son.



[daringfireball.net](http://daringfireball.net)



[daringfireball.net](http://daringfireball.net)

2010.dconstruct.org using Arial

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That said, font choice **is** important.

dConstruct holding page using Arial.

# dConstruct 2010

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[daringfireball.net](http://daringfireball.net)

2010.dconstruct.org using Reader

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Subtle improvement – now using Reader, designed by our neighbours Colophon. Difference is almost subconscious, but none-the-less differentiates from what else is out there.



'Avalokana' is a Sanskrit word.  
It means 'to see, observe or review'.  
We are a communication design firm  
based out of Ahmedabad, India.

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We thrive on creating books of value. We are looking at visually rich books, which have international viability. We love writing as much as we love designing. We enjoy doing all the things that fall in-between too. [Read more.](#)



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In the good ol' days branding meant putting a hot iron stamp on your cattle. Then they wouldn't get confused with anyone else's. Branding, at the most basic level, seeks to give a sense of ownership and belonging. [Read more.](#)



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Its easy to over-design a page, so it looks great, but is hard to read. Editorial design, at its best, commands restraint. In a world full of printed words, every publication seeks its own voice. We spend time to hear those voices. [Read more.](#)



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Indian design firm using Georgia, which is lovely, but it's everywhere



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So they chose to use Calluna instead

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But then you start to see what webfonts can really do.

Truphone using Heavy and Light weights of Bliss. The problems I mention earlier are solved.

# CITIZEN MUSICIANS

USE THEIR TALENT AND PASSION FOR MUSIC  
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citizenmusician.org

COLLABORATE

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Citizen Musician using Folio Medium for body copy and Folio Condensed Light for the headlines.



All feet  
are not  
created  
equal.

#### NIKE N7

Through Nike's N7 initiative, we have built an environmentally friendly performance shoe to address the specific width and fit requirements for the Native American foot. Where diabetes is prevalent in this community, this shoe will help combat it by encouraging and improving exercise. Where there's a shoe, there's a way.

[Learn more](#)

[www.nikebetterworld.com](http://www.nikebetterworld.com)

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Nike using Din Display Thin for headline and Din Display Light for body copy, and a custom font for the heading.

Looks stunning – like print work, which is no bad thing because the site is properly interactive and has been built solidly to adapt to its screen environment.

# GFS Baskerville

ελληνικά – open type

## Γράφειν δήμος εἰκόνων Εύρωτα

ΛΙΓΑ ΛΟΓΙΑ ΓΙΑ ΤΗ BASKERVILLE

Ο John Baskerville (1706-1775) ασχολήθηκε αργά στη ζωή του με την τυπογραφία, αλλά παρόλα αυτά το έργο του υπήρξε σημαντικό. Δραστήριος επιχειρηματίας και ανήσυχο πνεύμα ωφέλησε την τυπογραφία τόσο σε αισθητικό όσο και σε τεχνολογικό επίπεδο. Πραγματοποίησε πολλές καινοτομίες στην εκτύπωση, την κατασκευή χαρτιού και μελάνης και υπήρξε τελειομανής σε κάθε εγχείρημα που αναλάμβανε. Ασχολήθηκε επισταμένα με τη σχεδίαση τυπογραφικών χαρακτήρων και η λατινική γραμματοσειρά του, με την οποία τύπωσε μία έκδοση του Βιργιλίου το 1757, εντυπωσίασε τους τυπογράφους και το βιβλιόφιλο κοινό σε όλη την Ευρώπη και την Αμερική. Αργότερα, ο Baskerville επιχείρησε τον σχεδιασμό ελληνικών χαρακτήρων τα οποία χρησιμοποίησε για τη στοιχειοθεσία της Καινής Διαθήκης το 1763 για το Πανεπιστήμιο της Οξφόρδης. Ο σχεδιασμός της γραμματοσειράς ακολουθούσε την απλοποίηση της ελληνικής τυπογραφικής κάσας, αποφεύγοντας τα πολυάριθμα συμπλέγματα, αλλά οι σχετικά στενές αναλογίες των στοιχείων δεν κέρδισαν την αποδοχή των βρετανικών κοινού και δεν ξαναχρησιμοποιήθηκε. Παρόλα αυτά έντονοι απόγοι της μπορούν να αναγνωριστούν στα ελληνικά στοιχεία του Giambattista Bodoni στην Ιταλία και εμμένως σε αυτά του Firmin Didot στη Γαλλία.

Η ψηφιοποίηση της γραμματοσειράς έγινε από τη Σοφία Καλαϊτζίδην και τον Γιώργο Ματθιόπουλο.

[www.greekfontsociety.org](http://www.greekfontsociety.org)

A FEW WORDS ABOUT BASKERVILLE

John Baskerville (1706-1775) got involved in typography late in his career but his contribution was significant. He was a successful entrepreneur and possessed an inquiring mind which he applied to produce many aesthetic and technical innovations in printing. He invented a new ink formula, a new type of smooth paper and made various improvements in the printing press. He was also involved in type design which resulted in a latin typeface which was used for the edition of Virgil, in 1757. The quality of the type was admired throughout Europe and America and was revived with great success in the early 20th century. Baskerville was also involved in the design of a Greek typeface which he used in an edition of the New Testament for Oxford University, in 1763. He adopted the practice of avoiding the excessive number of ligatures which Alexander Wilson had started a few years earlier but his Greek types were rather narrow in proportion and did not win the sympathy of the philologists and other scholars of his time. They did influence, however, the Greek types of Giambattista Bodoni. and through him Didot's Greek in Paris.

The typeface has been digitally revived as GFS Baskerville Classic by Sophia Kalaitzidou and George D. Matthiopoulos and is now available as part of GFS' type library.

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Apart from visual design reasons, one of the drivers for font linking is for non-Latin texts.

cf. The Greek Font Society, creating a range of new fonts introducing greek character set to classic faces like this Baskerville.



## Non-Latin Greek

[All](#)[Serif 104](#)[Sans Serif 154](#)[Slab Serif 58](#)[Script 52](#)[Display 255](#)[Non-Latin 16](#)[Arabic 1](#)[Armenian 1](#)[Cyrillic 6](#)[Greek 10](#)[Hebrew 1](#)Sample Text: [Greek](#)

A ← → A

Sort by: [Popularity](#)

Showing 1–10 of 10 fonts

[Beau Sans Pro 14 styles](#)

Τη γλώσσα μου έδωσαν ελληνική το σπί

[Din Display Pro 12 styles](#)

Τη γλώσσα μου έδωσαν ελληνική το σπίτι φ

[Square Sans Pro 12 styles](#)

Τη γλώσσα μου έδωσαν ελληνική το σπίτι φ

[Centro Sans Pro 8 styles](#)

Τη γλώσσα μου έδωσαν ελληνική το σπίτι φ

**Greek Tags**

1930s angular bauhaus  
bernhard gothic calligraphic  
centro clean computer  
contemporary corporate  
cyrillic czech din  
display flexy futuristic  
garalde greek grotesque  
heavy legible magazine  
modern old style  
punchcut romantic round  
rounded signage simple  
soft spurless square  
square sans super family  
text transitional trendy  
true italics valentine  
venetian wedge serif

Τη λύρας δημοσιεύματα εγγυώμενη το όντας  
[fontdeck.com/typefaces/nonlatin/greek](http://fontdeck.com/typefaces/nonlatin/greek)

[View Details](#) ▾ [Compare](#) ▾ [Add to cart](#)

Sunday, 13 March 2011

Fontdeck has some **modern** Greek typefaces.



# Lagoon Regular

Sample Text:

Armenian

[+ Add to website](#)

\$7.50 per year

72 ԵՎՆԱ ԻՐ  
ԸՆԿԵՐՆԵՐԻ ՀԵտ  
ԱԼՍԵց Ա...

48 ԵՎՆԱ ԻՐ ԸՆԿԵՐՆԵՐԻ ՀԵտ  
ԱԼՍԵց ԱՊՎՈՐԱԿԱՆ  
ԱՂՈԹՔՆԵՐՆ Ու  
ՄՔՆՈՒԹՅՈՒՆՆԵՐԸ Եւ  
ԱՐՏԱՍ...

ԹՆԱՅՈՒ...

[fontdeck.com/font/lagoon/regular](http://fontdeck.com/font/lagoon/regular)

## About this font

TYPEFACE Lagoon

CLASSIFICATION Non-Latin » Armenian

FOUNDRY Pomegranate

DESIGNER Carolyn Puzzovio

TAGS revival venetian

This typeface began as a research project which investigated the possibilities for the creation of revival typefaces for the Armenian alphabet, based on the best traditions and craft skills exemplified in rare Armenian books and manuscripts.

The type selected as the model for this revival was one used in Venice in 1810 and created at the monastery of the Mechitarist monks in Venice, who have been specialists in Armenian printing for hundreds of years. The book studied was 'Liakatar vark ew vKayabanut'win srhoc' – (Complete lives of saints) by M. Awgerian – which would have been

առաջին ամենահայտնի գրքը Վենետիկում՝ Մահմետական պատճեն է և այս գրքի պատճենը առաջին ամենահայտնի գրքը Վենետիկում՝ Մահմետական պատճեն է և այս գրքի պատճենը

ff

Sunday, 13 March 2011

**So what else is new?**

Ligatures. Special characters formed automatically from the combination of letters, usually to improve legibility (in Latin scripts).

Calibri	0123abcdefigHJKlmnopQRStuv
Cambria	0123abcdefigHJKlmnopQRStu
Candara	0123abcdefigHJKlmnopQRStu
Constantia	0123abcdefigHJKlmnopQRStu
Corbel	0123abcdefigHJKlmnopQRStuv

Sunday, 13 March 2011

Core web fonts designed not to need them, but with ability to use font linking, and also the growing distribution of Microsoft's C fonts, ligatures are here.

Calibri

0123abcdefghijklmnopqrstuvwxyzJKLMNOPQRSTUVWXYZ

Cambria

0123abcdefghijklmnopqrstuvwxyzJKLMNOPQRSTUVWXYZ

Candara

0123abcdefghijklmnopqrstuvwxyzJKLMNOPQRSTUVWXYZ

Constantia

0123abcdefghijklmnopqrstuvwxyzJKLMNOPQRSTUVWXYZ

Corbel

0123abcdefghijklmnopqrstuvwxyzJKLMNOPQRSTUVWXYZ



*affloat fine fjords*

Sunday, 13 March 2011

**Why important?**

Baskerville italic. Ligatures turned off. fs crash into the following letter.

*aʃʃloatʃ fineʃʃjɔrðs*

Sunday, 13 March 2011

Ligatures turned on. fs joined with following letter. subtle but its one of the small details I was talking about.

```
h1 {  
  text-rendering: optimizeLegibility;  
}
```

Sunday, 13 March 2011

Supported by Safari and Firefox.

Turns on common ligatures (there are others – will come to those).

On by default in Firefox on Mac at all sizes, and from 20px upwards on Firefox Windows.  
Need to turn on in Safari – off by default for performance reasons (esp Mobile Safari).

Actually an SVG property. But there's a CSS way to ligatures on and off as well.

### 6.3 Ligatures: the `font-variant-ligatures` property

W3C Editor's Draft

Name:	<code>font-variant-ligatures</code>
Value:	<code>normal</code>   <code>inherit</code>   [ <code>&lt;common-lig-values&gt;</code>    <code>&lt;additional-lig-values&gt;</code>    <code>&lt;historical-lig-values&gt;</code> ]
Initial:	<code>normal</code>
Applies to:	all elements
Inherited:	<code>yes</code>
Percentages:	N/A
Media:	<code>visual</code>
Computed value:	as specified

Specifies control over which ligatures are enabled or disabled. A value of 'normal' implies that the defaults set by the font are used.

```
<common-lig-values> = [ common-ligatures | no-common-ligatures ]
<additional-lig-values> = [ additional-ligatures | no-additional-ligatures ]
<historical-lig-values> = [ historical-ligatures | no-historical-ligatures ]
```

Individual values have the following meanings:

#### `common-ligatures`

Enables display of common ligatures (OpenType feature: `liga`). For OpenType fonts, common ligatures are enabled by default.

➤

#### `no-common-ligatures`

Disables display of common ligatures (OpenType feature: `liga`).

#### `additional-ligatures`

Enables display of additional ligatures (OpenType feature: `dlig`).

➤

#### `no-additional-ligatures`

Disables display of additional ligatures (OpenType feature: `dlig`).

#### `historical-ligatures`

Enables display of historical ligatures (OpenType feature: `hlig`).

➤

#### `no-historical-ligatures`

Disables display of historical ligatures (OpenType feature: `hlig`).

Required ligatures, needed for correctly rendering complex scripts, are not affected by the settings above.

<http://dev.w3.org/csswg/css3-fonts/>

avoids splitting and breaking ligatures for better readability

Sunday, 13 March 2011

There is a CSS property to turn ligatures on and off too.

Need to turn to CSS 3 Fonts Module.

Ligatures are OpenType features, which in one sense introduces logic programming into font files. If an i follows and f replace the i and the f with a ligature.

Ligatures are optional in Latin but required in Arabic and Indic scripts.

OpenType features have now made it into an Editors draft of the CSS3 Fonts Module. So its coming and at a relatively swift W3C pace (last updated last week) and now seems pretty stable.

ff fl ffi fi ffl fb fk  
ff fl ffi fi ffl fb fk

Sunday, 13 March 2011

Ligatures in Calluna. Firefox automatically renders these – you can't stop that on a Mac.

But as designers we want control.

```
h1 {  
    font-family: Calluna, Georgia, serif;  
    font-variant-ligatures: common-ligatures;  
}  
  
p {  
    font-family: Calluna, Georgia, serif;  
    font-variant-ligatures: no-common-ligatures;  
}
```

Sunday, 13 March 2011

**font-variant-ligatures** property.

Turn on or off common ligatures.

st ip it ck gi fj ap qu oo  
ſt iƿ it ck gι fj ſƿ qu o○

Sunday, 13 March 2011

I've been talking about common ligatures.  
There are more.  
Calluna has alternative, or 'discretionary' ligatures.

```
h1 {  
font-family: Calluna, Georgia, serif;  
font-variant-ligatures: common-ligatures additional-ligatures;  
}
```

Sunday, 13 March 2011

Also turn on additional ligatures.



Sunday, 13 March 2011

Ligatures gone mad in Zapfino. Typing in InDesign with common, contextual alternative and discretionary ligatures turned on.

Majestic  
Majestic

Sunday, 13 March 2011

Not just some character combinations, but entire alphabets. Such as these stylistic alternates in Majestic Mishmash, designed by Emil Bertell of Fenotype.

```
h1 {  
font-family: "Majestic Mishmash", Georgia, serif;  
font-variant-alternates: stylistic(1);  
}
```

Sunday, 13 March 2011

Stylistic font variants.

affloat fine fjORDS

affloat *fine* fjORDS

Sunday, 13 March 2011

There's other sorts of alternates too. Like these swash alternates in Redisturbed designed by Jeremy Tankard.

```
h1 {  
    font-family: "Redisturbed", serif;  
    font-variant-ligatures: common-ligatures;  
    font-variant-alternates: swash(1);  
}
```

Sunday, 13 March 2011

Use `font-variant-alternates` again, but with the `swash` value.

# Values for font-variant-alternates mapped to OpenType features

stylistic(n)	<i>salt n</i>
contextual	<i>calt, clig</i>
no-contextual	<i>calt, clig</i>
historical-forms	<i>hist</i>
styleset(01–20)	<i>ss01–ss02</i>
character-variant(01–99)	<i>cv01–cv99</i>
swash(n)	<i>swsh n</i>
contextual-swash(n)	<i>cswh n</i>
ornaments(n)	<i>ornm n</i>
annotation(n)	<i>nalt n</i>

Sunday, 13 March 2011

Lots of values paired with pre-defined OpenType features

---

0123456789

---

---

0123456789

---

Sunday, 13 March 2011

Let's look at more: number case. This is Calluna's Lining and Old Style numerals.

```
h1 {  
    font-family: Calluna, Georgia, serif;  
    font-variant-numeric: oldstyle-nums;  
}
```

Sunday, 13 March 2011

font-variant-numeric to turn on old style numerals

## **Proportional**

<b>Lining</b>	<b>Old Style</b>
409,280	409,280
367,112	367,112
155,068	155,068
171,792	171,792

## **Tabular**

<b>Lining</b>	<b>Old Style</b>
409,280	409,280
367,112	367,112
155,068	155,068
171,792	171,792

```
table {  
    font-family: Calluna, Georgia, serif;  
    font-variant-numeric: lining-nums tabular-nums;  
}
```

Sunday, 13 March 2011

Can also turn on tabular numbers with lining numbers.  
Suitable for a table.

10½

```
h1 {  
    font-family: Calluna, Georgia, serif;  
    font-variant-numeric: diagonal-fractions slashed zero;  
}
```

Sunday, 13 March 2011

Can also turn on proper fractions and slashed zeros.



# font-kerning

[marketplace.veer.com/merch/vpr0001260](http://marketplace.veer.com/merch/vpr0001260)

Sunday, 13 March 2011

**font-kerning**

All quality fonts have kerning tables which nudge letter combinations closer together or further apart.

**World Wide Web**  
**World Wide Web**

*World Wide Web*  
*World Wide Web*

Top: Kerned; Bottom: Unkerned

Sunday, 13 March 2011

The web has only had kerning for a year or so.

Top: Kerned; Bottom: Not kerned

Note the capital Ws in the Baskerville Italic, bottom row

```
h1 {  
  font-kerning: none;  
}
```

Sunday, 13 March 2011

Kerning should be on by default, but you can turn it off.

Incidentally letter-spacing adjustments are made after kerning has been applied.

```
h1 {  
  text-rendering: optimizeLegibility;  
}
```

Sunday, 13 March 2011

Back to our text-rendering property again.

Supported by Safari and Firefox.  
Turns on kerning as well as common ligatures.

# **font-feature-settings**

Sunday, 13 March 2011

**Ok. Confession.**

All of the kerning, alternates, and ligatures properties... theres no support for them yet. But there is starting to be support for what they do, using this. Supported in Firefox 4

low-level control over font features. Is another way to access OpenType properties (particularly those without their own CSS property).

Can be used for all the font-variant properties previously mentioned.

```
h1 {  
  font-feature-settings:"liga=1, dlig=1, lnum=1, tnum=1";  
}
```

Lucky affluent actor asks to  
feast on giant cheese-filled  
quiche in fjord.

-moz-font-feature-settings : "kern=0,liga=1,swsh=1"

<b>Small caps</b> <input checked="" type="radio"/> Off <input type="radio"/> Synthetic (font-variant: small-caps) <input type="radio"/> OpenType (smcp)	<b>Numeral spacing</b> <input checked="" type="radio"/> Default <input type="radio"/> Proportional (pnum) <input type="radio"/> Tabular (tnum)	<b>OpenType kerning</b> <input type="checkbox"/> Enabled (kern)
<b>Numerical style</b> <input checked="" type="radio"/> Default <input type="radio"/> Lining (lnum) <input type="radio"/> Oldstyle (onum)	<b>Fractions</b> <input checked="" type="radio"/> Off <input type="radio"/> Normal (frac) <input type="radio"/> Alternate (afrc)	<b>Ligatures</b> <input checked="" type="checkbox"/> Common (liga) <input type="checkbox"/> Discretionary (dlig) <input type="checkbox"/> Historical (hlig)
	<b>Slashed zero</b> <input type="checkbox"/> Enabled (zero)	<b>Swash forms</b> <input checked="" type="checkbox"/> Enabled (swsh)
		<b>Stylistic sets</b> <input type="checkbox"/> ss01 <input type="checkbox"/> ss02 <input type="checkbox"/> ss03 <input type="checkbox"/> ss04 <input type="checkbox"/> ss05
		<b>CJK character forms</b> <input checked="" type="radio"/> Default <input type="radio"/> Simplified (smpl) <input type="radio"/> Traditional (trad)

**Font** Redisturbed       Bold       Italic

[Calluna](#) · [Majestic Mishmash](#) · [Olivette](#) · [Trilogy Fatface](#) · [Redisturbed](#)

[Reset](#)

Sunday, 13 March 2011

Cue demo in Firefox 4

# **font-size-adjust**

Sunday, 13 March 2011

**font-size-adjust**

very useful for keeping consistency in font sizes  
only supported by Firefox but currently in the CSS3 Fonts Module

```
h1 {  
    font-family:"Bickham Script Std", "Snell Roundhand", cursive;  
}
```

*Seguat nullute nunsan vitae ed  
ullutat irilla volorerci; nim  
aliquatem velenisit veros.*

```
h1 {  
    font-family:"Bickham Script Std", "Snell Roundhand", cursive;  
}
```

*Sequat nullute nunsan  
vitae ed ullutat irilla  
oolorerci; nim  
aliquatem velenisit  
veros.*

Sunday, 13 March 2011

Same size but set in Snell Roundhand. Metrics completely different.

```
h1 {  
    font-family:"Bickham Script Std", "Snell Roundhand", cursive;  
    font-size-adjust:0.19;  
    /* aspect ratio of x-height to text height */  
}
```

*Sequat nullute nunsan vitae ed  
ullutat irilla volorerci; nim  
aliquatem velenisit veros.*

*Sequat nullute nunsan  
vitae ed ullutat irilla  
volorerci; nim aliquatem  
velenisit veros.*

*Sequat nullute nunsan vitae ed  
ullutat irilla volorerci; nim  
aliquatem velenisit veros.*

*Sequat nullute nunsan vitae ed ullutat irilla  
volorerci; nim aliquatem velenisit veros.*

Sunday, 13 March 2011

With font-size-adjust, the text is resized accordingly.  
line-height stays the same, and em calculations arent affected

$$s = (a/a)s$$

**s** = font-size value

**a** = aspect value specified by font-size-adjust property

**a** = aspect value of actual font

**s** = adjusted font-size to use

Sunday, 13 March 2011

**font-size-adjust**

very useful for keeping consistency in font sizes

only supported by Firefox but currently in the CSS3 Fonts Module

Useful for webfonts too.

ele-  
phant

Sunday, 13 March 2011

The elephant in the room is hyphenation.

egipci⁹ de manu ysmahelitar⁹: a q̄b⁹  
p̄dudus erat. Sūitq; dñs cū eo: et erat  
vīr i cūdīs prosp̄x agens. Ilhabitauitq;  
in domo dñi sui: qui optime nouerat  
dñm esse cū eo: et oīa que gereret ab eo  
dirigi i manu illi⁹. Inuenitq; ioseph⁹  
graciā coram dño suo: et ministrabat  
ei. A quo p̄positus omnib⁹ gubernabat  
coddīta libi domū: et uniuersa que  
i tradīta fuitā. Benedixitq; dñs do-  
mīnū egipci⁹ p̄ter ioseph⁹: et multiplicā-  
uit ram i edibus q̄j in agri cūdam  
i⁹ s̄bstanciā. Nec quicq; alīnd noue-  
rat: nisi panē quo vescerat. Erat autē  
ioseph⁹ pulchra facie: et decorus asperu.  
Post mulcos itaq; dies. iniecit dñna  
oculos suos in ioseph⁹: et ait. Domī  
meū. Qui nequaq; acquisiens op̄ri  
nephario: dixit ad eā. Ecce dñs meū  
omnib⁹ mīchi tradīns. ignorat qđ  
habeat in domo sua: nec quicq; ē qđ  
non sit in mea potestate. uel nō tradi-  
dit mīchi: p̄te te que vxor tūus es.  
Quō ergo possū hpc malū facere: et pecca-  
re i dñm meū. Iunismodi ubis per  
singulos dies loquebāt: et mulier mo-  
lesta erat adolescenti: et ille recusabat  
stuprū. Accidit autē quadā die ut in-  
traret ioseph⁹ domū: et operis quippā  
absq; arbitris faceret: et illa apprehensa  
lacrima uestimentū eius dicēt. Domī  
meū. Qui relido i manu eius pallio.  
fugit: et egressus ē foras. Lūq; vidisset  
mulier uestem i manib⁹ suis: et se esse  
temptam: vocauit ad se hoīes dom⁹  
sue: et ait ad eos. Eni introduxit virū  
hebreū: ut illudetur nobis. Ingressus  
est ad me: ut roberet meū. Lūq; ego  
succlamasse: et audisset vocau meā:  
reliquit palliū qđ tenebam: et fugit fo-  
ras. In argumentū ergo fiduci. recentū  
pallū: qđ u. Hyphenation in the Gutenberg Bible

et ait. Ingressus ē ad me seru⁹ hebreū.  
quē adduxisti: ut illudēt mīchi. Lūq;  
audisset me clamare: reliquit palliū  
qđ tene-  
bis di-  
iugie  
seph i  
diebe  
dñs i  
dit ei  
tūis.  
uedo  
et qui  
uerat  
enī eo  
**R**egis-  
tū; cor-  
temi  
in can-  
erat u-  
ris tr-  
bar ei  
in cul-  
somi-  
nam i-  
llset i-  
sciscit  
solite  
Dominū monit⁹: et nouit qui inter-  
p̄teretur nobis. Dixitq; ad eos ioseph⁹.  
Mūquid nō dei ē interpretatio? Refare  
mīchi quid videbas. Narrauit prior  
p̄positus pincernar⁹. somniū suū. Vi-  
debam coram me vitam in qua erant  
tres pagines cresce paulatim i gan-  
mas: et post flores vias maturescere:  
calitanq; pharaonis in manu mea.  
Tuli ergo vias: et expressi i calicem quē  
tenebam: et tradii pouliū pharaoni.  
Gesondi ioseph⁹ p̄cessit interpretatio-

Sunday, 13 March 2011

We've had hyphenation since Gutenberg's bible of the 1450s. Many say he invented it.

But it's not been available on the web without resorting to soft hyphens, zero width spaces and clever javascript hackery.

# elephant

"The definition of the hyphenation feature is very much up-in-the-air at the moment."

Sunday, 13 March 2011

CSS 3 Text Module had this to say:

"The definition of the hyphenation feature is very much up-in-the-air at the moment."

If there's no spec, in today's climate there's pretty much no chance of it getting into browsers.

## 6. Hyphenation

Hyphenation allows the controlled splitting of words to improve the layout of paragraphs. CSS3 Text does not define the exact rules for hyphenation, but defines six properties and an at-rule that influence hyphenation.

Whether hyphenation is applied can be controlled with the '[hyphens](#)' property.

### 6.1. Hyphenation Control: the '[hyphens](#)' property

Name:	<a href="#">hyphens</a>
Value:	none   manual   auto   all
Initial:	manual
Applies to:	all elements
Inherited:	yes
Percentages:	N/A
Media:	visual
Computed value:	specified value

This property controls whether hyphenation is allowed to create more break opportunities within a line of text. Values have the following meanings:

#### **none**

Words are not broken at line breaks, even if characters inside the word suggest line break points.

#### **manual**

Words are only broken at line breaks where there are characters inside the word that suggest line break opportunities.

Characters can be explicit or conditional.

#### **auto**

Words can be broken at appropriate hyphenation points either as determined by hyphenation characters inside the word or as determined automatically by a language-appropriate hyphenation resource (such as those provided via '[@hyphenation-resource](#)'). Explicit hyphenation characters inside a word take priority over automatic resources when determining hyphenation points within the word.

#### **all**

All possible hyphenation points, as would be determined for 'auto', are marked. The visual appearance of the mark is UA-dependent. This value is intended for debugging. [Do we really need this value?](#)

Correct automatic hyphenation requires a hyphenation resource appropriate to the language of the text being broken. The UA is

Sunday, 13 March 2011

But look what we have now!

Working draft of CSS 3 Text Module published on 3 weeks ago with hyphenation.

# Proposed Hyphenation Properties

Hyphenation Control: the `hyphens` property

Hyphens: the `hyphenate-character` property

Hyphenation Character Limits: the `hyphenate-limit-before` and  
`hyphenate-limit-after` properties

Hyphenation Line Limits: the `hyphenate-limit-lines` and  
`hyphenate-limit-last` properties

The `@hyphenate-resource` rule

The `hyphenate-resource` property



Sunday, 13 March 2011

One final thought about the future. At the beginning I mentioned hi res displays and their impact on web typography.

Not going to be with us for a while, but what is here now is improved rendering on low res displays.

Polle

Polle

Polle

Why p  
quiche

Why p  
quiche

Why p  
quiche

14 Up, and after doing son  
of money, thence home,  
in the State, that I may  
put...

14 Up, and after doing son  
sum of money, thence [  
trouble in the State, tha  
Having put...

14 Up, and after doing som  
of money, thence home,  
in the State, that I may n  
put...

15 Up, and after doing some  
money, thence home, in  
State, that I may not hav  
way, I home to the office  
to Broad Streete, to Sir G

15 Up, and after doing some  
money, thence home, in  
that I may not have all I  
home to the office, and so  
Streete, to Sir G Carter...

15 Up, and after doing some  
money, thence home, in p  
that I may not have all I ha  
home to the office, and so  
Streete, to Sir G Carter...

Sunday, 13 March 2011

DirectWrite shown alongside Cleartype and OS X. Blown up twice.  
Really rather good.

Ships with Windows 7 and Vista SP2.  
Windows 7 already has about 25% market share.

**Richard Rutter**

@clagnut

Cofounder, Fontdeck.com

<http://webtypography.net/talks/sxsw2011/>

Sunday, 13 March 2011

So that was font weights, font widths, OpenType features and hyphenation. Some of it we can do now. Some of it we can sort of do now. Other bits we'll have to wait for.

But there's lot of great typographic enhancements coming in the next few years. Detail in typography is going to become as important and viable to web designers as it is to those working in print. And that excites me.

Richard Rutter is cofounder of Fontdeck.com, the professional webfont service.