WEB FONTS AS PROGRESSIVE ENHANCEMENT

@andyhume
Ampersand, 2013
What’s this?
This is... an outage
This is...

downtime
This is...

lost page views
This is...

lost revenue
Thank-you!

http://lanyrd.com/sckmwb
@andyhume

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Meaning is the baseline. Design is an enhancement.

Paul Lloyd
https://speakerdeck.com/paulrobertlloyd/the-edge-of-the-web
Meaning is the baseline
Unreliable

http://www.flickr.com/photos/the_jorr/325224175/
Resilient

http://www.flickr.com/photos/vpickering/6824364286/

Sunday, December 29, 13
Progressive enhancement

So, the conclusion is that this is the best way to deal with this. Yay us.

Next, how do we do that.

http://www.flickr.com/photos/8040811@N06/3167877765

Sunday, December 29, 13
The path to render
The path to render

HTML → CSS → START RENDER

FONT → FONT → FONT → FONT
The path to render
The path to render

HTML → CSS → START RENDER → TEXT RENDER

Sunday, December 29, 13
### What causes this?

<table>
<thead>
<tr>
<th>Fallback</th>
<th>Blocking</th>
<th>Blocking + Timeout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Explorer</td>
<td>Safari, Mobile Safari, Chrome, Opera (Blink)</td>
<td>Firefox, Opera (Presto)</td>
</tr>
</tbody>
</table>
A solution

http://www.flickr.com/photos/droetker0912/5542920908/
Web font loader

- Provide control over font loading
- Remove fonts from the critical path
- Make cross-browser behaviour consistent
Web font loader

```html
<link href="/myfonts.css" rel="stylesheet" />
```
Web font loader

```html
<link href="/myfonts.css" rel="stylesheet" />
```
Web font loader

```javascript
var WebFontConfig = {
    custom: {
        families: ['Clarendon', 'Clarendon Bold'],
        urls: ['/myfonts.css']
    }
};
```
Web font loader

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```javascript
var WebFontConfig = {
  custom: {
    families: ['Clarendon', 'Clarendon Bold'],
    urls: ['/myfonts.css']
  }
};

var s = document.createElement('script');
s.src = '//ajax.googleapis.com/webfonts.js';
document.head.appendChild(s);
```
Web font loader

```html
<body class="clarendon-loading">
<body class="clarendon-loaded">
```
Web font loader

```html
<body class="clarendon-loading">

<body class="clarendon-loaded">

h1 {
    font-family: georgia, serif;
}
.clarendon-loaded h1 {
    font-family: Clarendon, georgia, serif;
}
```
More solutions

http://www.flickr.com/photos/droetker0912/5542920908/
Three-person IVF: UK government backs mitochondrial transfer

Mitochondrial transfer procedure could prevent mothers passing on devastating genetic conditions to their children

Ian Sample, science correspondent
The Guardian, Friday 28 June 2013

In mitochondrial transfer, genetic material from the parents is injected into a donor egg that has had its nucleus removed. Photograph: Getty Images

The government is to push ahead with plans that would allow doctors to prevent major childhood diseases by creating IVF babies that have genetic material from three people.

The controversial procedure, called mitochondrial transfer, uses a snippet of DNA from a healthy female donor to prevent mothers passing on devastating genetic disorders such as muscular dystrophy and heart and liver conditions.

Pioneered in Britain by researchers at Newcastle University, the procedure targets diseases caused by faulty mitochondria – the tiny power units inside our cells. The disorders tend to affect parts of the
Roger Federer's shock of all ages leaves Centre Court stunned

- Defeat of seven-times winner stuns Centre Court
- 'You just go back to work and come back stronger'

Kevin Mitchell at Wimbledon

The sense of shock that greeted Rafael Nadal's exit on day one of these championships seemed but a ripple on day three when Roger Federer, whose greatness needs no more embroidering than does the Spaniard's, followed him out of Wimbledon, beaten on merit and with distinction by Sergiy Stakhovsky, who was still numb from the achievement hours later.

The scoreboard on Centre Court said it ended 6-7, 7-6, 7-5, 7-6 in the Ukrainian's favour after exactly three hours. The split-second silence that preceded the gasp at the end described a more profound truth: this was the biggest upset in the history of these championships, possibly the
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*Websites do not need to look the same in every browser*
base64 encoding

- Applied with data uri scheme
- Can still load asynchronously

+ More control (HTML, JSON, CSS)
+ Easily combine fonts into one file
  - Complicates build process
  - Font format support must be detected
Base64 encoding

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+ More control (HTML, CSS, JSON, XML)
+ Easily combine fonts into one file
  - Font format support must be detected
  - Complicates build process
Defer fonts to second page

- Download the font on the first page but don’t show it until second page.
- Check *page views per visit* metrics

+ Avoids FOUT on subsequent pages
- Fonts missing on first page view
Subsetting

- Fonts must be as small as possible
- Subset to your primary character set
- Strip out any other unnecessary icon glyphs
Hinting

- Test things
- Deliver a readable web font or no web font

+ Improves type rendering on some platforms
- Increases font file sizes
Caching

- HTTP caching is vital
- localStorage works
- Appcache (might) work

+ Stops fonts being downloaded unnecessarily
- Various methods differ in complexity
Progressive enhancement
Progressive enhancement

Modern browsers only
Progressive enhancement

- Modern browsers only
- WOFF support only
Progressive enhancement

- Modern browsers only
- WOFF support only
- localStorage available
Guardian: before text renders

MODERN BROWSER?

SUPPORT WOFF?

FONTS IN STORAGE?

NO

NO

NO

NO

NO

NO

NO

NO

SHOW FONTS

NO FONTS
Guardian: after text renders

1. STORAGE AVAILABLE?
   - NO
     - DOWNLOAD FONTS: BASE64 ENCODED IN JSON
       - CACHE FONTS IN STORAGE
         - SHOW FONTS
     - NO FONTS
Responsibility
Thank-you!

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@andyhume

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