

PART 7

## Introduction

Web Video

Vector Images

SEO + Tracking

# Quick revision

# Quick revision

What is Continuous Integration?

# Quick revision

What is Continuous Integration?

An agile development process whereby developers regularly merge changes into the main line

# Quick revision

What is blue / green deployment?

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What is blue / green deployment?

A go-live process whereby downtime is minimised by keeping two production instances running and swapping traffic following deployment of an update

# Quick revision

What is a CDN? Which vendor do we use?

# Quick revision

What is a CDN? Which vendor do we use?

A Content Delivery Network is a layer of servers that cache content and preserve load on the origin server. We use Akamai.

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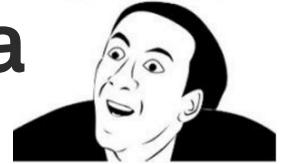
# Video on the web

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Beginning with the explosive growth of YouTube in the mid 2000s, video has become a critical medium of content on the web.

# Video on the web

Tech Trivia



# Video on the web

## Tech Trivia

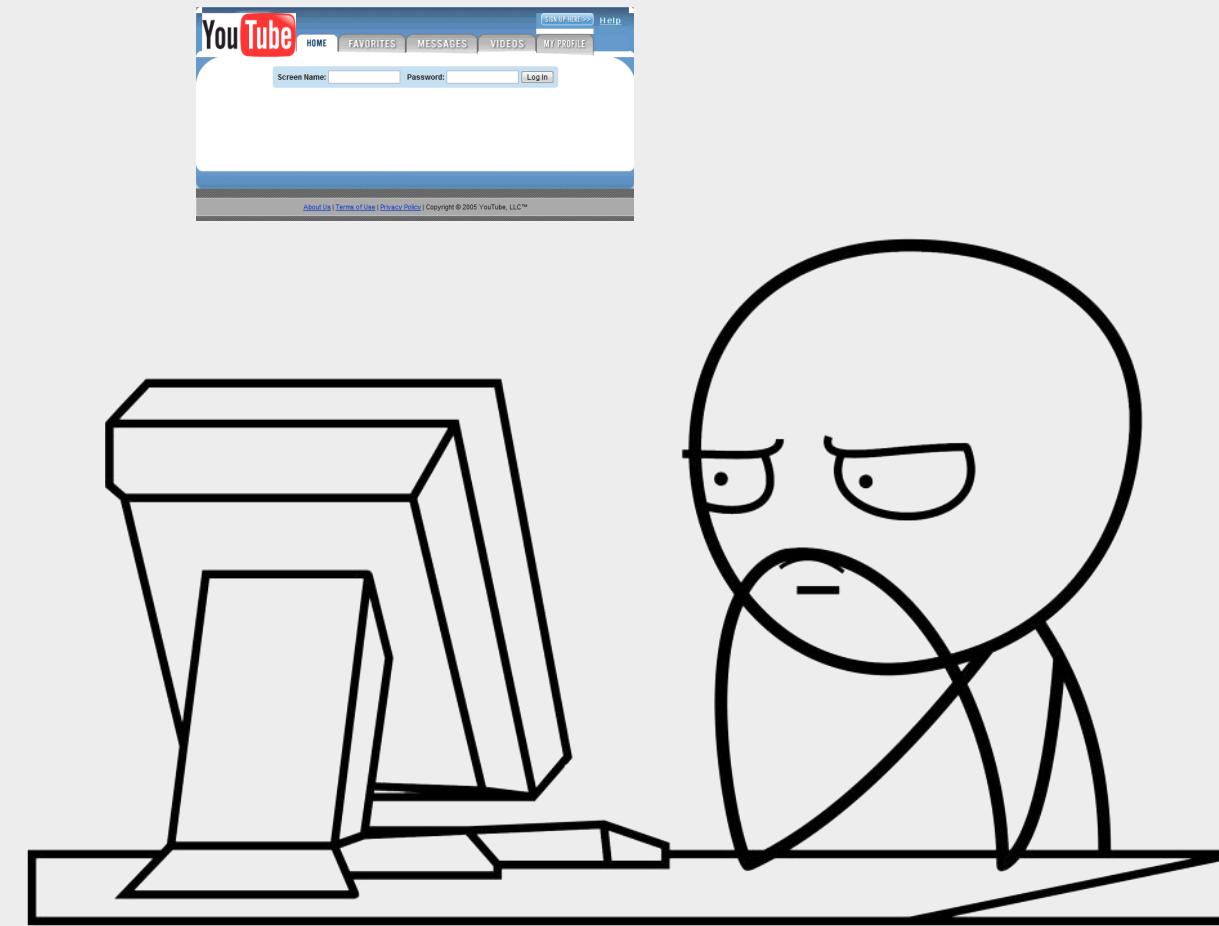
YouTube was founded by two devs and one designer in 2005 and quickly became the fastest growing site on the web. Initially bootstrapped with credit cards and headquartered above a pizzeria, it was acquired by Google Inc in 2006 for US\$1.65 billion.

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## Tech Trivia

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# Technology of video

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As the web was originally purposed for static documents, there was no HTML standard to support video until HTML5 became prevalent in around 2010.

# Enter Flash

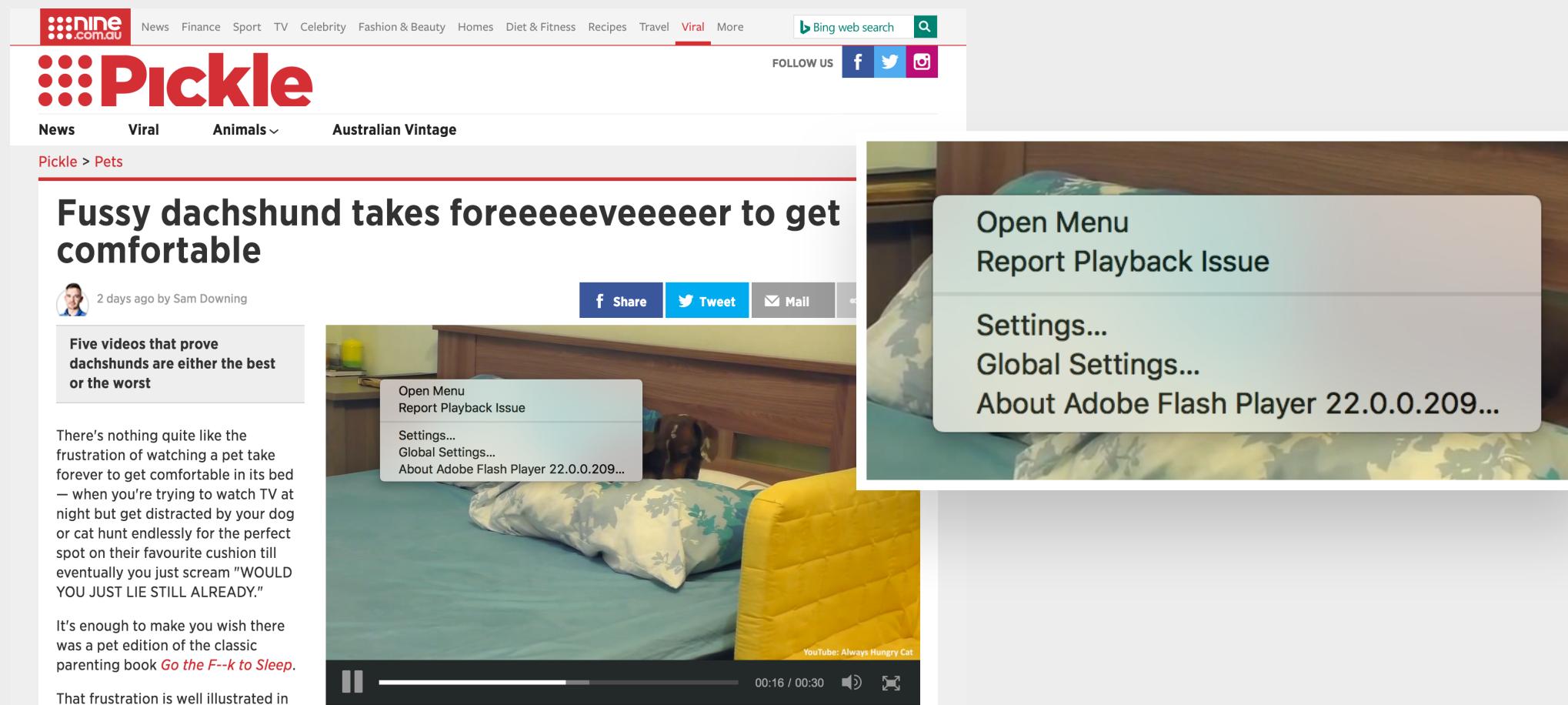
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Therefore, as with most dynamic things in the early days, Macromedia (Adobe) Flash was used to stream video.

**...and Flash is still being used**

# ...and Flash is still being used

For reasons we'll discuss.



# HTML5 Video

# HTML5 Video

`<video>` was proposed in 2007 to become a first class citizen of the web alongside other tags such as `<video>`.

**But it's not that simple**

# But it's not that simple

The complexity of streaming video caused a few hurdles to widespread adoption of the HTML standard versus the legacy Flash solution.

# Browser vendor politics

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The big browser vendors - Apple (Safari), Microsoft (IE), Google (Chrome), Mozilla (Firefox) - disagreed on the web format that the standard should support.

## Tech Trivia

## Tech Trivia

‘Format wars’ are a common feature of the technology industry but have their origins are far back as railway gauges, vinyl record standards and Betamax / VHS.

Wikipedia says: A format war emergence can be explained because each vendor is trying to exploit cross-side network effects in a two-sided market.

# For example

```
<video width="480" controls poster="/template.gif" >  
  <source src="/my-webm-video.webm" type="video/webm">  
  <source src="/my-mp4-video.mp4" type="video/mp4">  
  <source src="/my-ogv-video.ogv" type="video/ogg">  
    Your browser doesn't support HTML5 video tag.  
</video>
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# So why choose HTML vs Flash?

With all those messy formats, why does it make sense to use HTML video instead of Flash?

# Quite a few good reasons

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- Flash consumes more battery power
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- iOS doesn't support Flash (huge reason)
- HTML video is better for search

# Video at Nine Digital

We're still using Flash (but not for long).

# Demo time

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# Vector images

# Vector images

Vector images on the web are usually applied with the SVG file format. SVG was introduced in 2001 however full support in Internet Explorer wasn't introduced until 2011.

# About SVGs

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SVGs are markup documents similar to HTML documents.

# About SVGs

```
<svg xmlns="http://www.w3.org/2000/svg"
      xmlns:xlink="http://www.w3.org/1999/xlink">
  <rect x="10" y="10"
        height="100" width="100"
        style="fill: #0000ff" />
</svg>
```

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Demo time

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Demo time

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As we can select inlined SVG elements using CSS that also allows us to apply standard CSS transitions to SVG properties. Animating infographics are often an effective way to communicate data patterns and changes.

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Demo time

# SVGs vs Web Fonts

At Nine we usually apply icon web fonts for our common icons such as social media brands.

# SVGs vs Web Fonts

We do this because:

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- Color can be changed

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- Hover effects (otherwise two SVGs are required)
- Animatable hover effects are allowed
- Color can be changed
- Easy to re-size

# SVGs vs Web Fonts

However, there are drawbacks:

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# SVGs vs Web Fonts

However, there are drawbacks:

- Clarity can be reduced by browser anti-aliasing
- Text properties are applied (kerning, leading) and these are usually irrelevant

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# SEO

# SEO

Search Engine Optimisation is the process of making sure content structure and content itself can be read and understood by search engines (Google). This, in turn, maximises search presence and ‘organic’ traffic.

# Semantics

# Semantics

One of the most important aspects of SEO is semantic markup. This means the markup tags should nest appropriate content.

# Semantics

Whereas ordered items should be in an <ol>

```
<h1>Medal Tally</h1>
<ol>
  <li>USA</li>
  <li>Great Britain</li>
  <li>Australia</li>
</ol>
```

# Semantics

Headings should be headings etc

```
<article>
  <h1>Australia wins gold in pool</h1>
  <p>Swimmers produce world record
      performance beating all rivals.
  </p>
</article>
```

# Semantics

The reason semantic markup is important is so the search engine can understand the document in terms of content and hierarchy. Documents that search engines can't understand will suffer in terms of search presence.

# Link juice

# Link juice

Search engines create an index via links. When a search engine ‘spider’ scans a webpage it indexes the content and follows the links. By examining the content of those links it can guess where the content leads.

Example

# External links

# External links

External links also qualify content to third parties. Google uses a ranking system to calculate the quality of outbound links (as determined by inbound links vs outbound links) so that a link from, say, Apple.com will rate far more highly than a link from a personal blog.

# Tracking

# Tracking

Tracking is an essential component of optimising a site and determining the success and performance of features and content. Tracking is also used to track ad campaigns and revenue.

# Tracking

**Tech Trivia**

# Tracking

## Tech Trivia

Google tested 41 shades of blue to determine the final shade to use on its web interfaces.

# Tracking

Ominture tracking is our vendor tracking clicks across the Nine Digital network. Ominture tracking works by intercepting all clicks as well as logging user sessions to track the same user's journey.

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## Example

# Cookies

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Cookies are used to track a single user's session, which can then be used to examine behaviour by user segments rather than simply pages.

# Cookies

Although cookies get a bad rep, they're really quite harmless. Essentially, cookies are small text files stored by the browser to identify a particular browser individually.

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## Example



Thank you.