

MAKE YOUR
BROWSER
DANCE

HELLO

I'm Ruth

UX, Design, Front End Dev

@rummyra

Work in The Lab at O2

WINAMP



MY NAME IS RUTH AND I AM A
VJ

*"Vjing is a broad designation for realtime
visual performance" - Wikipedia*

I WAS THINKING

CSS Animations

Web Audio API (+ others)

Can we recreate my old uni days?

TWO THINGS

Moving visual

Analysed sound wave



CREATING CSS ANIMATION

```
@keyframes flashing {
  0%    { opacity: 0; }
  50%   { opacity: 1; }
  100%  { opacity: 0; }
}

.lights i {
  animation:flashing 2s infinite;
}
```

YOU'LL NEED VENDOR PREFIXES :)

List of animatable properties: <http://oli.jp/2010/css-animatable-properties/>

GO MAD

- [HTML](#)
- [LESS](#)
- [JS](#)
- Result

Edit on

```
<script src="http://www.jasondavies.com/d3.min.js"></scri
<script src="http://www.jasondavies.com/wordcloud/d3.layc
<div class="outer">
<div id="container">
```

- [HTML](#)
- [SCSS](#)
- [JS](#)
- Result

Edit on

```
<div class="container"><div class="box"><div class="box">
html {
```

- [HAML](#)
- [Sass](#)
-
- Result

Edit on

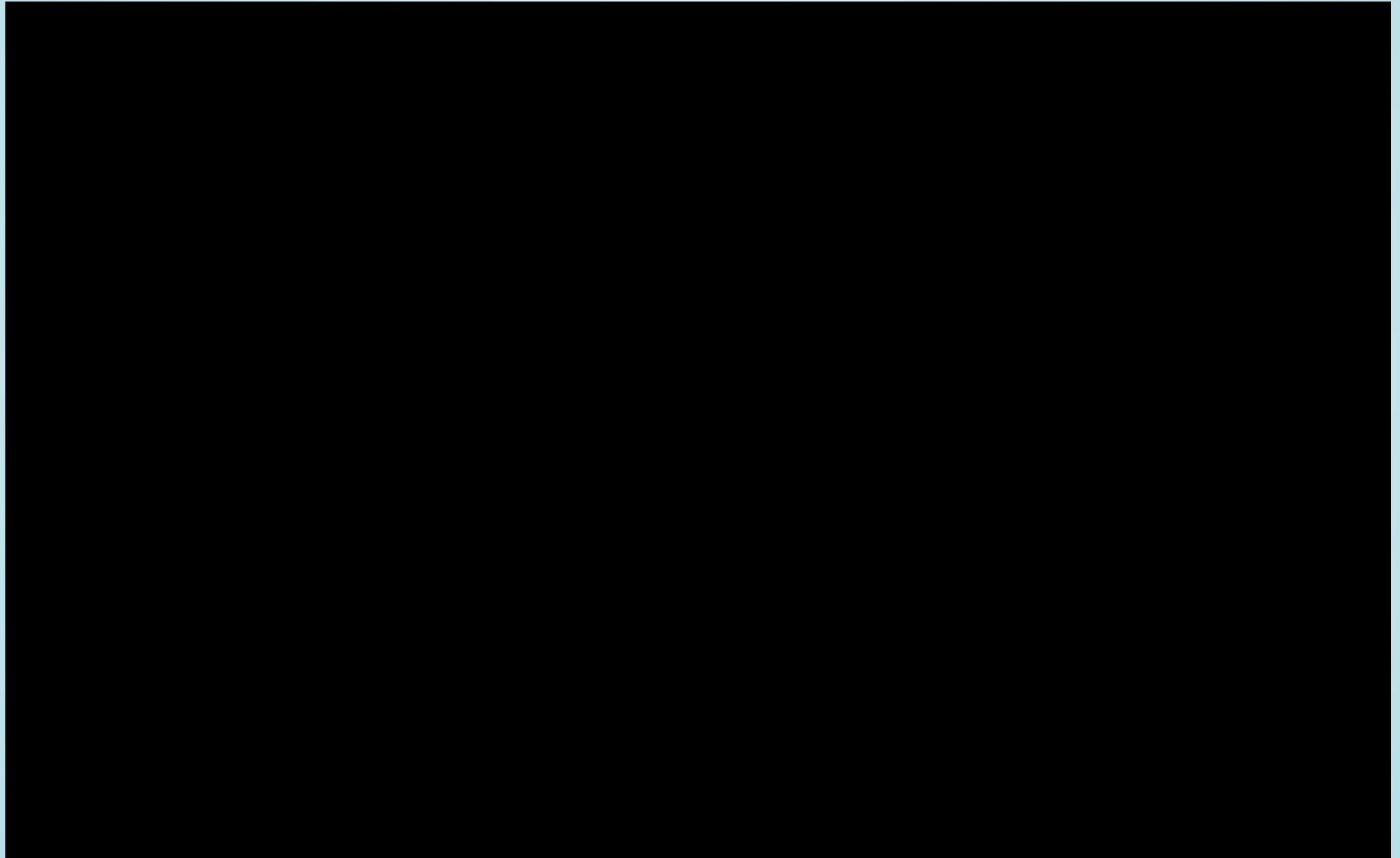
```
%ul.strip
- (1..360).each do |i|
  %li.line
```

- [HTML](#)
- [LESS](#)
-
- Result

Edit on

```
<div id="background">
<div class="container">
  <div class="dice animate">
    <div class="panel">
```

EXPANDING ON THE LIGHT



WEB AUDIO API

It's magic!

Based around nodes

Source node -> sound you are loading in

Output node -> where the sound wants to come out

ALL THE THINGS

Control volume

```
//Control volume  
myAudioContext.createGain();
```

Create filters

```
//Create filter  
myAudioContext.createBiquadFilter();
```

Create sound

```
//Create sound  
myAudioContext.createOscillator();
```

The **Web Audio API O'Reilly book** by Boris Smus is free to read online!

ANALYSING

We can do that :D

```
//create instance
var analyser = myAudioContext.createAnalyser();

//get data
analyser.getBytesFrequencyData();
analyser.getFloatFrequencyData();
analyser.getBytesTimeDomainData();
```

MORE MAGIC (& SOME CODE)

Loop through our lights, match them to a frequency and set them alight

```
//get light elements
var lights = document.getElementsByTagName('i');
var totalLights = lights.length;

for (var i=0; i 160){
    lights[i].style.opacity = "1";
} else {
    lights[i].style.opacity = "0.2";
}
}
```


USEFUL LINKS

- dancing.rumyra.com
- [O'Reilly Audio API Book by Boris Smus](#)
- dancer.js