

# BEYOND SCREEN SIZE

Using CSS to optimise layout by device (and more!)

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Generate CSS • 26 September, 2019

**ME**

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Front-End Development / Design

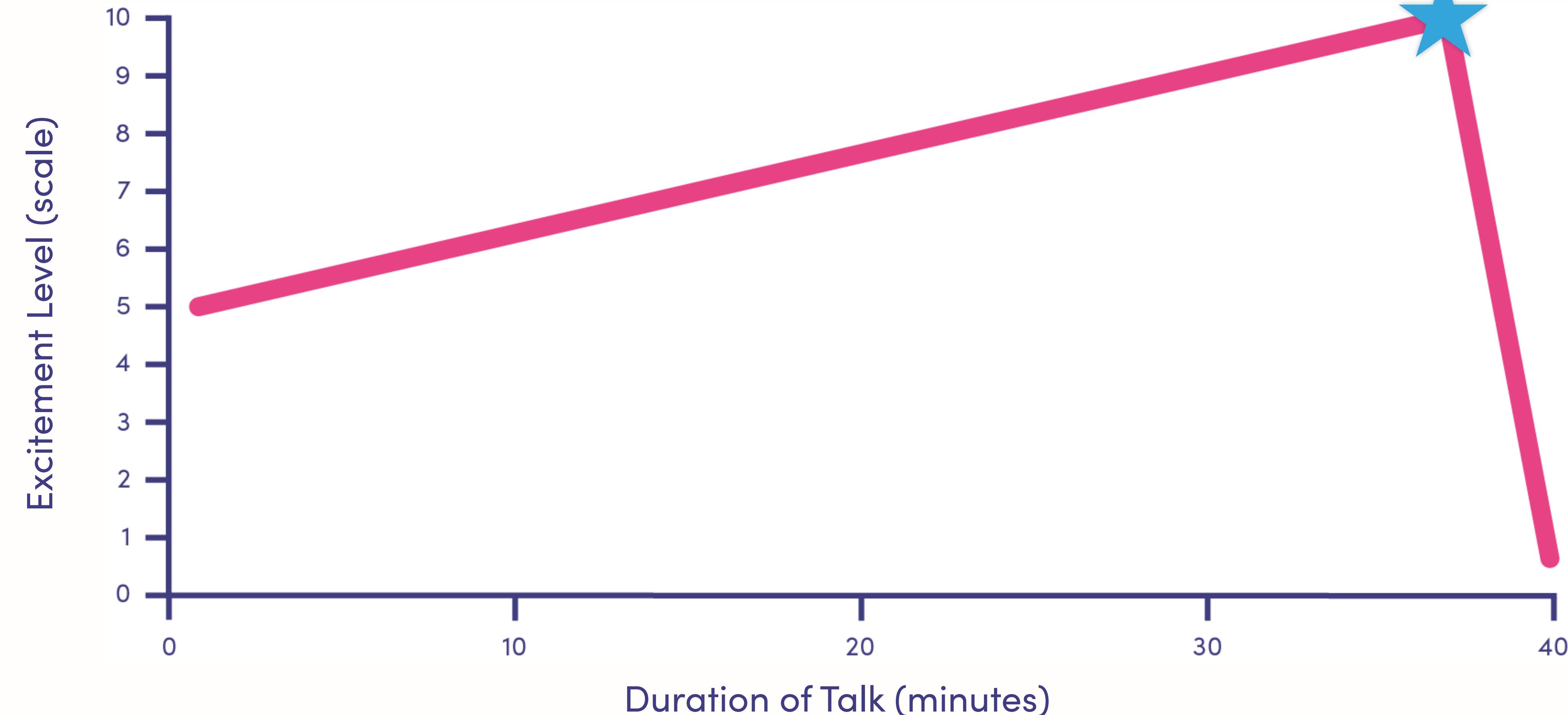
# LIFE BEFORE CSS

<https://github.com/brendastorer/robiewilliams99>

**YOU?**

# EMOTIONAL REACTION TO NEW CSS SPECS

Moment when browser compatibility is mentioned. 😢😢😭😭😡



# EMOTIONAL REACTION TO NEW CSS SPECS



# THE SLOW AND TEDIOUS IE DEATH MARCH

The screenshot shows a Microsoft blog post. At the top, there's a header with a search icon, the Microsoft logo, and a 'Sign In' button. Below the header, the author is identified as 'Chris Jackson Microsoft' with a small profile picture. The date and time of the post are listed as '02-06-2019 08:01 AM'. The main title of the post is 'The perils of using Internet Explorer as your default browser'. A note at the top of the post states: 'Update March 12, 2019: Since this post was published, I've received some customer questions on the future of Internet Explorer. We are committed to keeping Internet Explorer a supported, reliable, and safe browser. Internet Explorer is still a component of Windows and follows the support lifecycle of the OS on which it's installed. For details, see: <https://support.microsoft.com/help/17454/lifecycle-faq-internet-explorer>'. The post content discusses the challenges of using Internet Explorer as the default browser, particularly in healthcare settings where teams are often thin. It notes that while most sites are designed for IE, it can be problematic. The author also mentions technical debt, comparing it to other organizational debts like User Account Control or legacy Java support. A section titled 'Creating technical debt by default' explains how Internet Explorer's design prioritized simplicity over standards compliance, leading to quirks mode for many sites. The post concludes with a note about the difficulty of ensuring all traffic goes through IE.

Chris Jackson Microsoft

02-06-2019 08:01 AM ✓

## The perils of using Internet Explorer as your default browser

**Update March 12, 2019:** Since this post was published, I've received some customer questions on the future of Internet Explorer. We are committed to keeping Internet Explorer a supported, reliable, and safe browser. Internet Explorer is still a component of Windows and follows the support lifecycle of the OS on which it's installed. For details, see: <https://support.microsoft.com/help/17454/lifecycle-faq-internet-explorer>.

From time to time, I am asked by customers, "How do I ensure that all web traffic goes to Internet Explorer?" In fact, I was recently asked this question by someone trying to help a hospital. Now, I understand the scenario. In healthcare (as in many other industries), it's often the case that you're running with an extremely thin team. As a result, it can seem that using Internet Explorer be default for all situations is the "easy button" because, well, most of your sites were designed for Internet Explorer, so...just...always use it, ok?

In short, this seems like a deliberate decision to take on some technical debt. It's true that most organizations have some technical debt lying around. (For example, if you've disabled User Account Control, require a 32-bit OS or 32-bit Office suite, or are paying for extended support for a legacy version of Java, you have some technical debt.) But this technical debt? Well, it's different.

### Creating technical debt by default

In the past, Internet Explorer was optimized for simplicity at the expense of technical debt. Looking all the way back to Internet Explorer 6, the very concept of "standards mode" vs. "quirks mode" comes from this "easy button" approach. All existing content (which had no DOCTYPE) would get quirks mode; you got standards mode by adding a specific DOCTYPE.

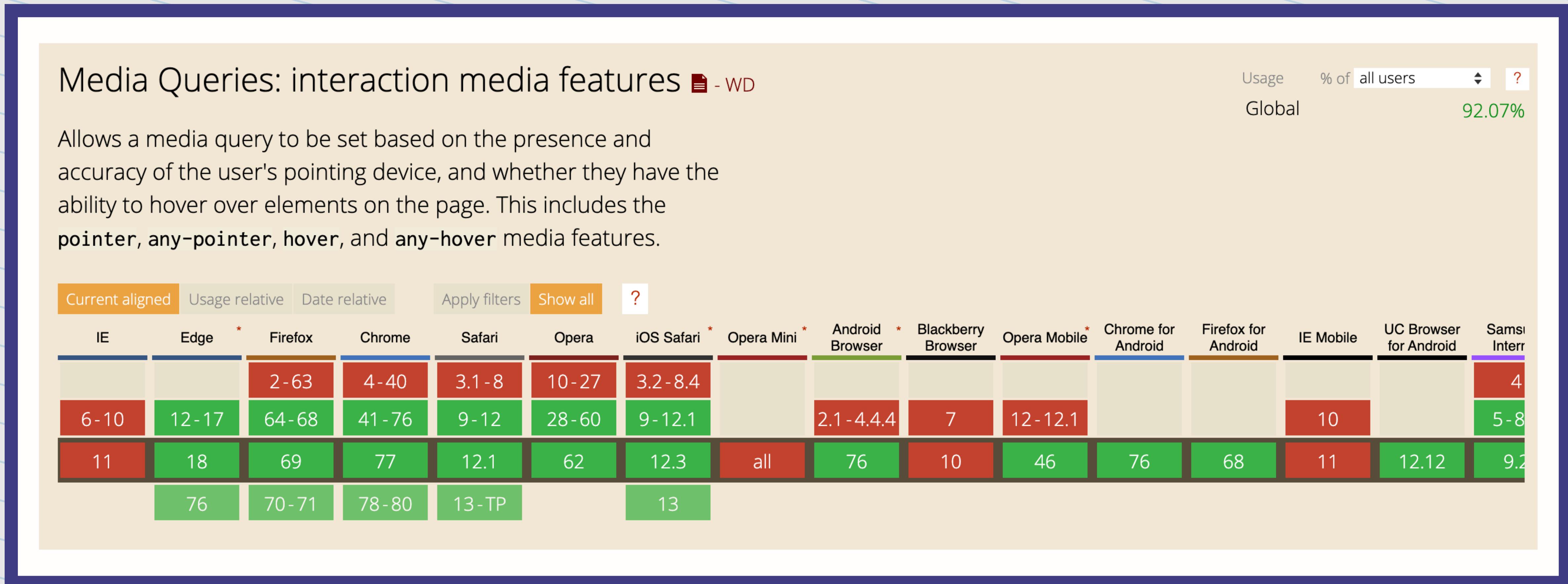
This, of course, had one little pesky problem: most people neither manually type HTML nor obsessively read the documentation to make sure they get the

# CSS PHILOSOPHY OF GRACEFUL DEGRADATION & PROGRESSIVE ENHANCEMENT

Browsers just skip CSS it doesn't understand. Let's use that to our advantage!

Order is important: default styles first, then override with the newer stuff

# INTERACTION MEDIA QUERIES



contexttravel.com

# Artful London

View London's artistic side from all angles

**National Gallery Crash Course**

3 HRS • LONDON, UNITED KINGDOM

National Gallery

★★★★★ (45)

\$504 PRIVATE TOUR    \$112/pp SMALL GROUP TOUR

**Tate Modern: Crash Course**

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Tate Modern

★★★★★ (32)

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**Victoria and Albert Museum Tour Crash Course**

3 HRS • LONDON, UNITED KINGDOM

Victoria and Albert Museum

**Contemporary Artists' Studios of London**

3 HRS • LONDON, UNITED KINGDOM

Tate Modern and Contemporary Artist

**Auction Houses: Decoding the Art Market**

3 HRS • LONDON, UNITED KINGDOM

Bonhams and White Cube Gallery

Need Help?

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Contemporary Artists' Studios of London  
Tate Modern and Contemporary Studio  
 (3)

\$504    N/A



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Tate Modern: Crash Course  
Tate Modern  
 (32)

\$504 PRIVATE TOUR    N/A SMALL GROUP TOUR

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3 HRS • LONDON, UNITED KINGDOM  
Auction Houses: Decoding the Art Market  
Bonhams and White Cube Gallery  
 (11)

\$504    N/A

# INTERACTION MEDIA QUERIES

Taken from a [Medium article](#)  
by [Riccardo Andreatta](#)

```
/* smartphones, touchscreens */  
@media (hover: none) and (pointer: coarse) {  
    ...  
}  
  
/* stylus-based screens */  
@media (hover: none) and (pointer: fine) {  
    ...  
}  
  
/* Nintendo Wii controller, Microsoft Kinect */  
@media (hover: hover) and (pointer: coarse) {  
    ...  
}  
  
/* mouse, touch pad */  
@media (hover: hover) and (pointer: fine) {  
    ...  
}
```

# INTERACTION MEDIA QUERIES

Make touch your default,  
and use

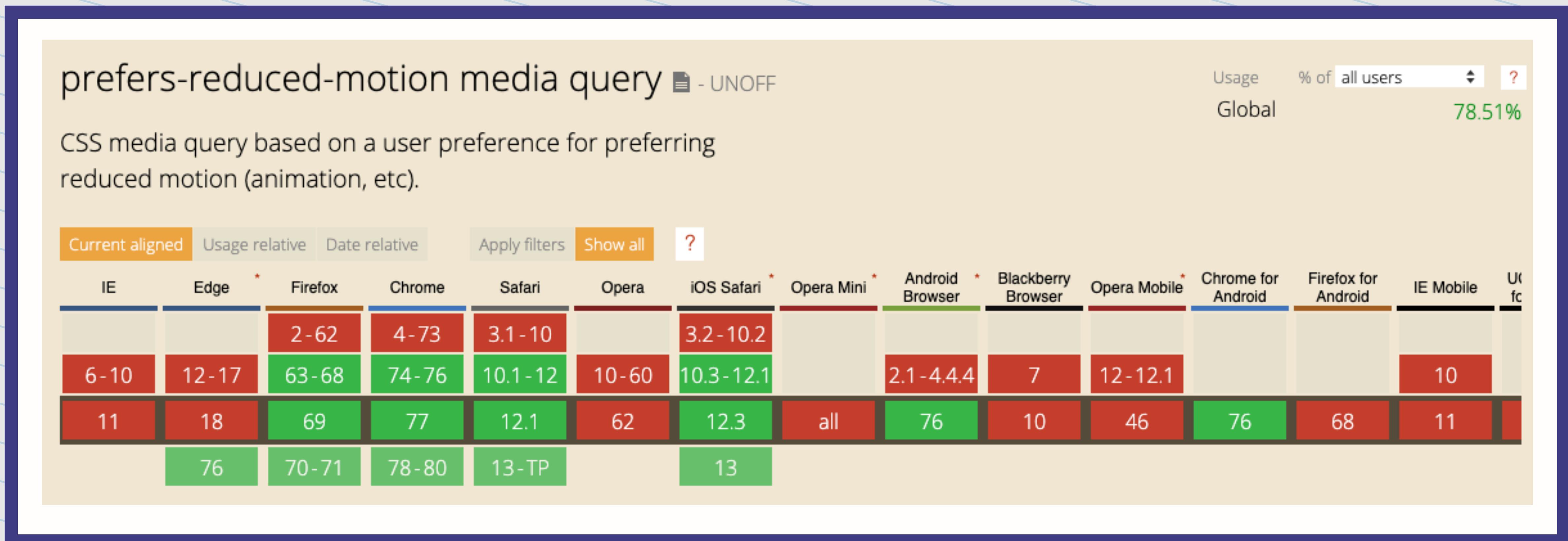
```
@media (hover: hover) and (pointer: fine)
```

to target devices where  
primary pointer is a mouse.

```
@media (hover: hover) and (pointer: fine) {  
  .tour-card:hover {  
    box-shadow: 0 0 10px rgba(black, 0.75);  
    text-decoration: none;  
    transform: scale(1.02);  
  }  
}  
  
.tour-card__cta {  
  display: block;  
}  
  
@media (hover: hover) and (pointer: fine) {  
  .tour-card__cta {  
    display: none;  
  }  
}
```

EXAMPLE

# PREFERS REDUCED MOTION



# PREFERS REDUCED MOTION

Based on users accessibility settings in their OS

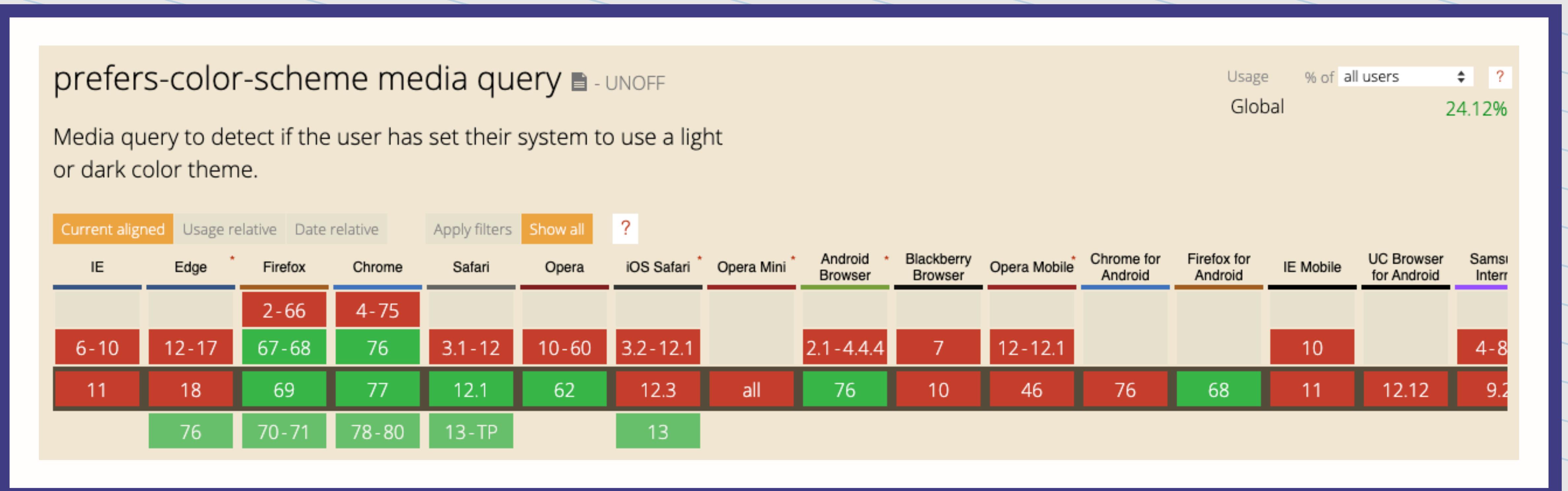
```
button {  
  animation: fade-in 0.3s linear infinite both;  
}  
  
@media (prefers-reduced-motion: reduce) {  
  button {  
    animation: none;  
  }  
}
```

# PREFERS REDUCED MOTION

No animation as a default

```
@media (prefers-reduced-motion: no-preference) {  
  button {  
    animation: fade-in 0.3s linear infinite both;  
  }  
}
```

# PREFERS COLOR SCHEME



# PREFERS COLOR SCHEME

Light as default

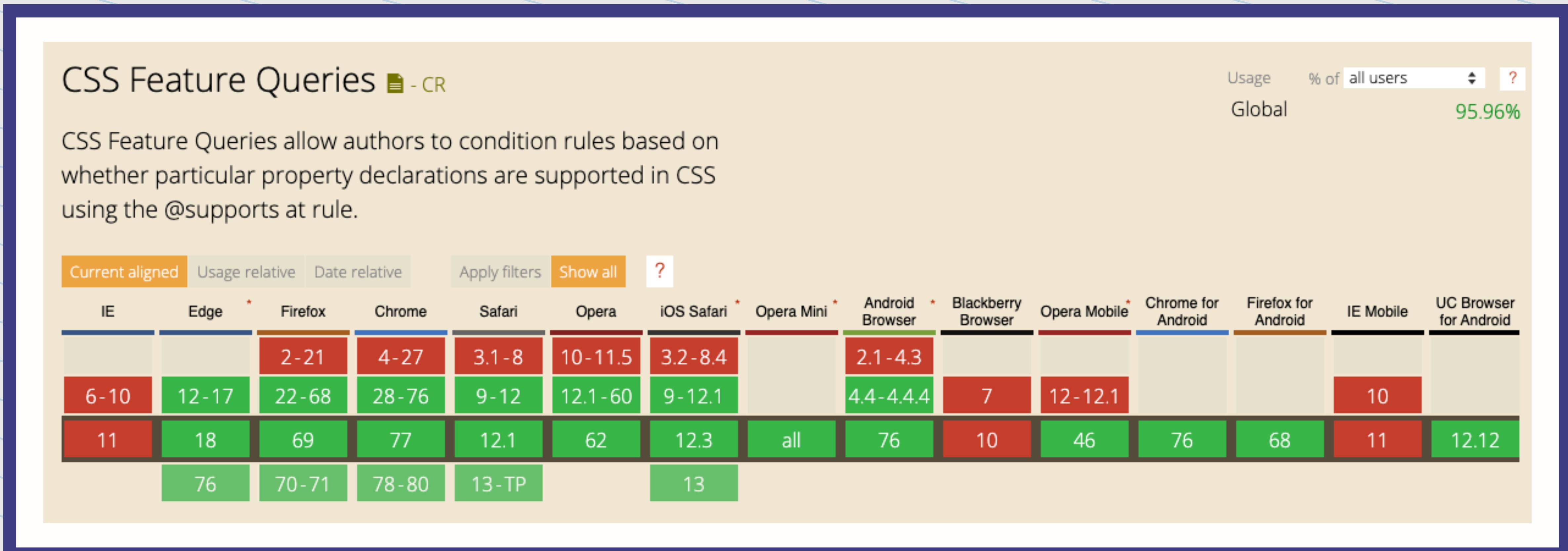
```
body {  
    background-color: white;  
    color: black;  
}  
  
@media (prefers-color-scheme: dark) {  
    body {  
        background-color: black;  
        color: white;  
    }  
}
```

# PREFERS COLOR SCHEME

Dark as default

```
body {  
    background-color: black;  
    color: white;  
}  
  
@media (prefers-color-scheme: dark) {  
    body {  
        background-color: white;  
        color: black;  
    }  
}
```

# FEATURE QUERIES



# FEATURE QUERIES

```
@supports (property: value) {  
    ...  
}
```

**MODERNIZR IN NATIVE CSS!**

# LINE CLAMP



# LINE CLAMP

Please, when Torchwood comes to write my complete history, don't tell people I travelled through time and space with her mother! You can spend the rest of your life with me, but I can't spend the rest of mine with you. I have to live on. Alo...

Text courtesy of [Doctor Ipsum](#)

# LINE CLAMP

Use -webkit prefixed version for all browsers.  
(even Firefox)

```
.truncated-paragraph {  
    display: -webkit-box;  
    -webkit-box-orient: vertical;  
    -webkit-line-clamp: 3;  
    overflow: hidden;  
}
```

# LINE CLAMP WITH FEATURE QUERY

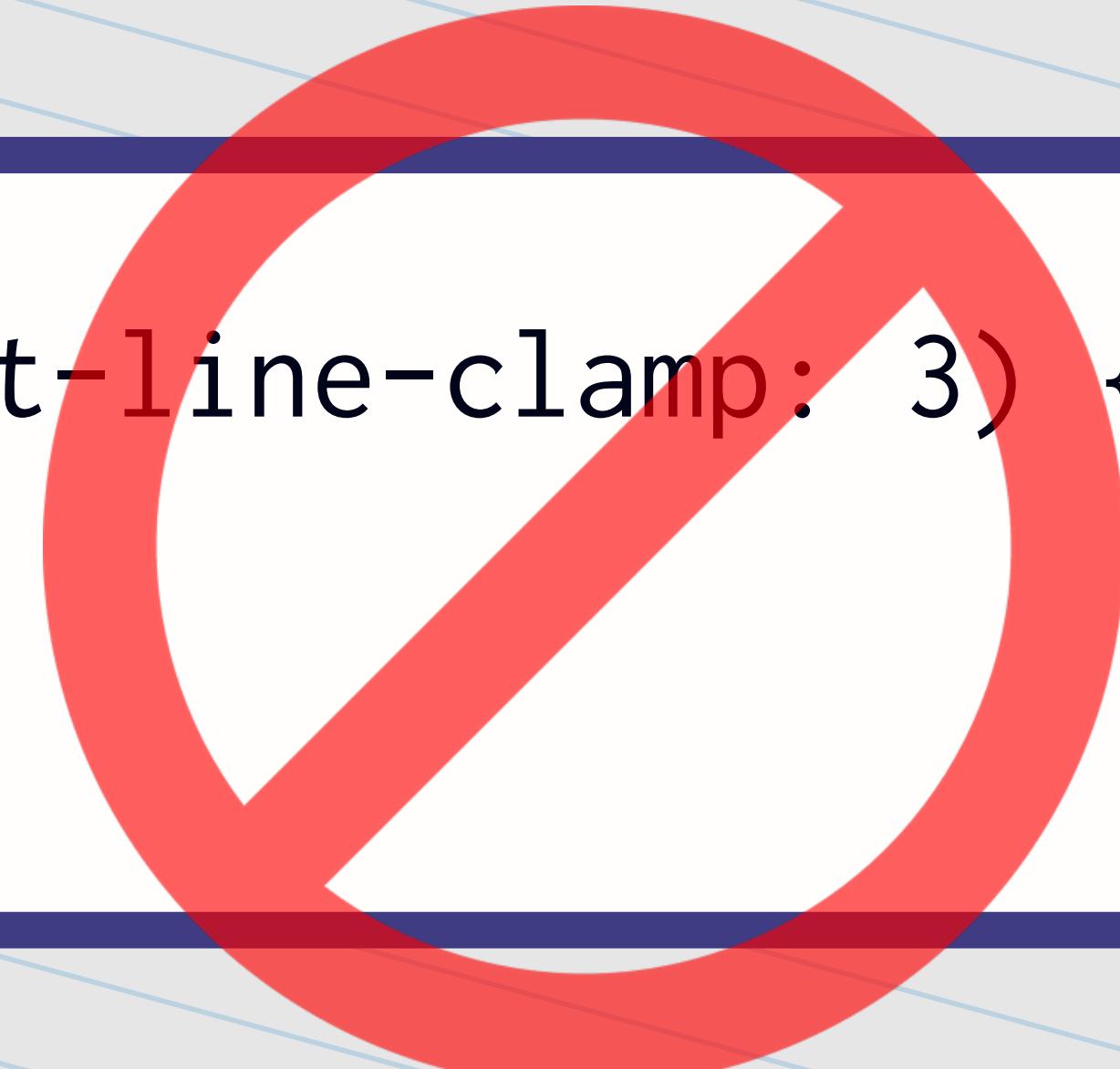
```
.truncated-paragraph {  
    overflow: hidden;  
    text-overflow: ellipsis;  
    white-space: nowrap;  
}  
  
@supports (-webkit-line-clamp: 3) {  
    .truncated-paragraph {  
        display: -webkit-box;  
        -webkit-box-orient: vertical;  
        -webkit-line-clamp: 3;  
        text-overflow: unset;  
        overflow: hidden;  
        white-space: unset;  
    }  
}
```

EXAMPLE

# FEATURE QUERIES

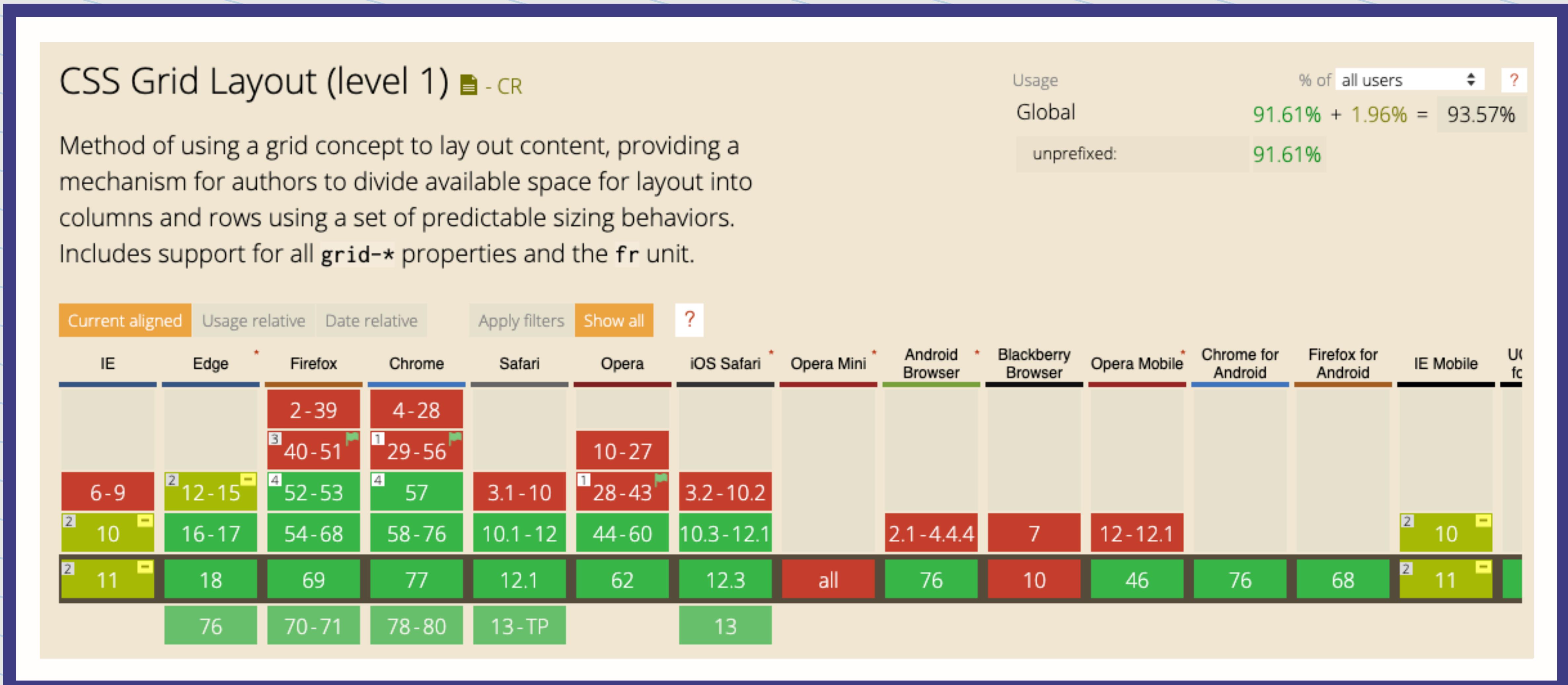
```
@supports (-webkit-line-clamp: 3) and (display: -webkit-box) {  
    ...  
}
```

```
@supports not (-webkit-line-clamp: 3) {  
    ...  
}
```



# FLEXIBLE SIZED GRIDS

Responsive based on content size rather than screen size



# FLEXIBLE SIZED GRIDS

Using CSS Grid on repeat

```
.images-grid {  
    display: grid;  
    grid-gap: 20px;  
    grid-template-columns: repeat(auto-fit, minmax(300px, 1fr));  
}
```

EXAMPLE

# GRACEFUL DEGRADATION

NOISE TO SIGNAL  
Rob Cottingham



# RESOURCES

## FEATURE QUERIES

Jen Simmons, Layout Land: The Magic of Feature Queries

<https://www.youtube.com/watch?v=T8uxmUQZsck>

<https://www.youtube.com/watch?v=7y-xfxC2jGA>

## LINE CLAMP

<https://css-tricks.com/almancal/properties/l/line-clamp/>

<https://developer.mozilla.org/en-US/docs/Web/CSS/-webkit-line-clamp>

## INTERACTION MEDIA QUERIES

<https://medium.com/@ferie/detect-a-touch-device-with-only-css-9f8e30fa1134>

## FLEXIBLE SIZED GRIDS

<https://rachelandrew.co.uk/archives/2016/04/12/flexible-sized-grids-with-auto-fill-and-minmax/>

<https://www.heartinternet.uk/blog/fearless-guide-using-css-grid-today/>

<https://css-tricks.com/auto-sizing-columns-css-grid-auto-fit-vs-auto-fit/>

## PREFERS REDUCED MOTION

<https://developers.google.com/web/updates/2019/03/prefers-reduced-motion>

## PREFERS COLOR SCHEME

<https://css-tricks.com/dark-modes-with-css/>

# THANK YOU!

@brendamarienyc

<https://brendastorer.com>

<https://brendastorer.com/presentations/2019-09-GenerateCSS.pdf>