



OPEN WEB  
PLATFORM

# VÍDEO NA WEB

*indo além do elemento <video>*

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W3C  
conferência **web.br** 2016

13 e 14 de Outubro

São Paulo - Brasil | Centro de Convenções Rebouças

SEGUNDO LOTE  
**130,00**

**COMPRE AGORA!**

21 mil

Curtir

294

Tweetar

G+



# World Wide Web

*Construção se dá por diferentes atores e em diferentes aspectos*

A person is shown from the chest up, sitting at a desk and using a laptop. The image is heavily blurred and has a dark blue overlay. The person's hands are on the keyboard, and their head is tilted slightly. The text 'Multimídia na Web' is centered over the image in a bright red color.

# Multimídia na Web

Globally, consumer internet **video traffic will be 80 percent of all consumer Internet** traffic in 2019, up from 64 percent in 2014

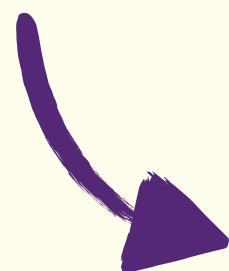
[Cisco Visual Networking Index: Forecast and Methodology, 2015–2020]

It would take an individual more than **5 million years to watch the amount of video** that will cross global IP networks each month in 2020

[Cisco Visual Networking Index: Forecast and Methodology, 2015–2020]







"mais da metade dos usuários  
*consome vídeo* na plataforma"

[GlobalWebIndex: Video is the Future of Social]

“o compartilhamento *de vídeos* é quase tão popular quanto o *de fotos*”



"mais da metade dos usuários *consome vídeo* na plataforma"



**1º vídeo do YouTube**



**1º vídeo do YouTube**

**2005**



**HTML**



**HTML**



**<video>**



```
<video src="braziljs.webm" controls>  
</video>
```

```
<video controls>  
  <source src="braziljs.webm" type="video/webm">  
  <source src="braziljs.mp4" type="video/mp4">  
</video>
```

```
<video controls poster="braziljs-foto.png">
  <source src="braziljs.webm" type="video/webm">
  <source src="braziljs.mp4" type="video/mp4">
  <track kind="subtitles"
    label="Legenda em Português"
    src="leg_pt.vtt"
    srclang="pt">
  </track>
  <track kind="metadata" src="dados.vtt">
  </track>
</video>
```

# WebVTT

1

00:00:00.500 --> 00:00:02.000

E a BrazilJS está começando!

2

00:00:02.500 --> 00:00:05.300

2 dias na maior conferência Javascript do Universo

...

# WebVTT

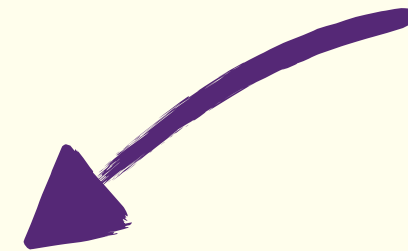
1

00:00:00.500 --> 00:00:02.000

E a BrazilJS está começando!

**HTML**

**JSON**



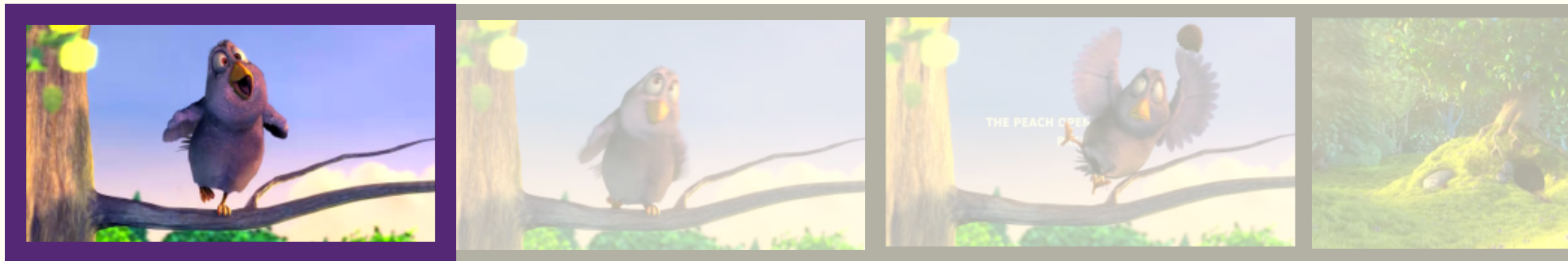
2

00:00:02.500 --> 00:00:05.300

2 dias na maior conferência Javascript do Universo

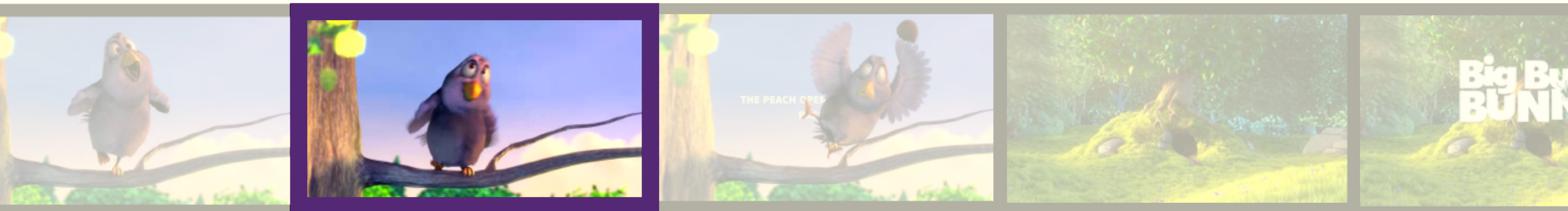
...

# Progressive Download



**<video>**

# Progressive Download



**<video>**

# Progressive Download



**<video>**



# Adaptative Bitrate



**<video> + MSE**

# Media Source Extensions (MSE)

*"enables JavaScript to dynamically construct media streams for audio and video tags"*

# Media Source Extensions

W3C Candidate Recommendation 05 July 2016

**This Version:**

<http://www.w3.org/TR/2016/CR-media-source-20160705/>

**Latest Published Version:**

<http://www.w3.org/TR/media-source/>

**Latest Editor's Draft:**

<http://w3c.github.io/media-source/>

**Previous Version:**

<http://www.w3.org/TR/2016/CR-media-source-20160503/>

**Editors:**

Matthew Wolenetz, [Google Inc.](#)

Jerry Smith, [Microsoft Corporation](#)

Mark Watson, [Netflix Inc.](#)

Aaron Colwell (until April 2015), [Google Inc.](#)

Adrian Bateman (until April 2015), [Microsoft Corporation](#)

**Repository:**

[We are on GitHub](#)

[File a bug](#)

[Commit history](#)

**Mailing list:**

[public-html-media@w3.org](mailto:public-html-media@w3.org)

**Implementation:**

#

## Media Source Extensions - CR

API allowing media data to be accessed from HTML `video` and `audio` elements.

Global	66.39%	+ 4.18%	= 70.57%
unprefixed:	65.6%	+ 4.18%	= 69.77%
Brazil	88.49%	+ 1.96%	= 90.45%
unprefixed:	87.99%	+ 1.96%	= 89.95%

[Current aligned](#)
[Usage relative](#)
[Show all](#)

IE	Edge	Firefox	Chrome	Safari	Opera	iOS Safari	Opera Mini	Android Browser	Chrome for Android
			29						
			49					4.3	
			50					4.4	
8	13	47	51			9.2		4.4.4	
<sup>2</sup> 11	14	48	52	9.1	39	9.3	all	51	51
		49	53	10	40				
		50	54	TP	41				
		51	55						

[Notes](#)
[Known issues \(0\)](#)
[Resources \(7\)](#)
[Feedback](#)

<sup>1</sup> Requires the `media.mediasource.enabled` flag to be enabled, support is limited to a whitelist including the YouTube, Netflix, and Dailymotion websites

<sup>2</sup> Partial support in IE11 refers to only working in Windows 8+

# **MPEG-DASH**

**Dynamic Adaptive Streaming over HTTP**



[x]

Video ID: hJmbuoFx03c

Dimensions: 1280 x 720 \* 2

Resolution: 1920 x 1080@30

Volume: 100%

Stream Host: r5--sn-bg07dnlz

Stream Type: https

CPN: nrPxq\_HPbD\_YY5eh

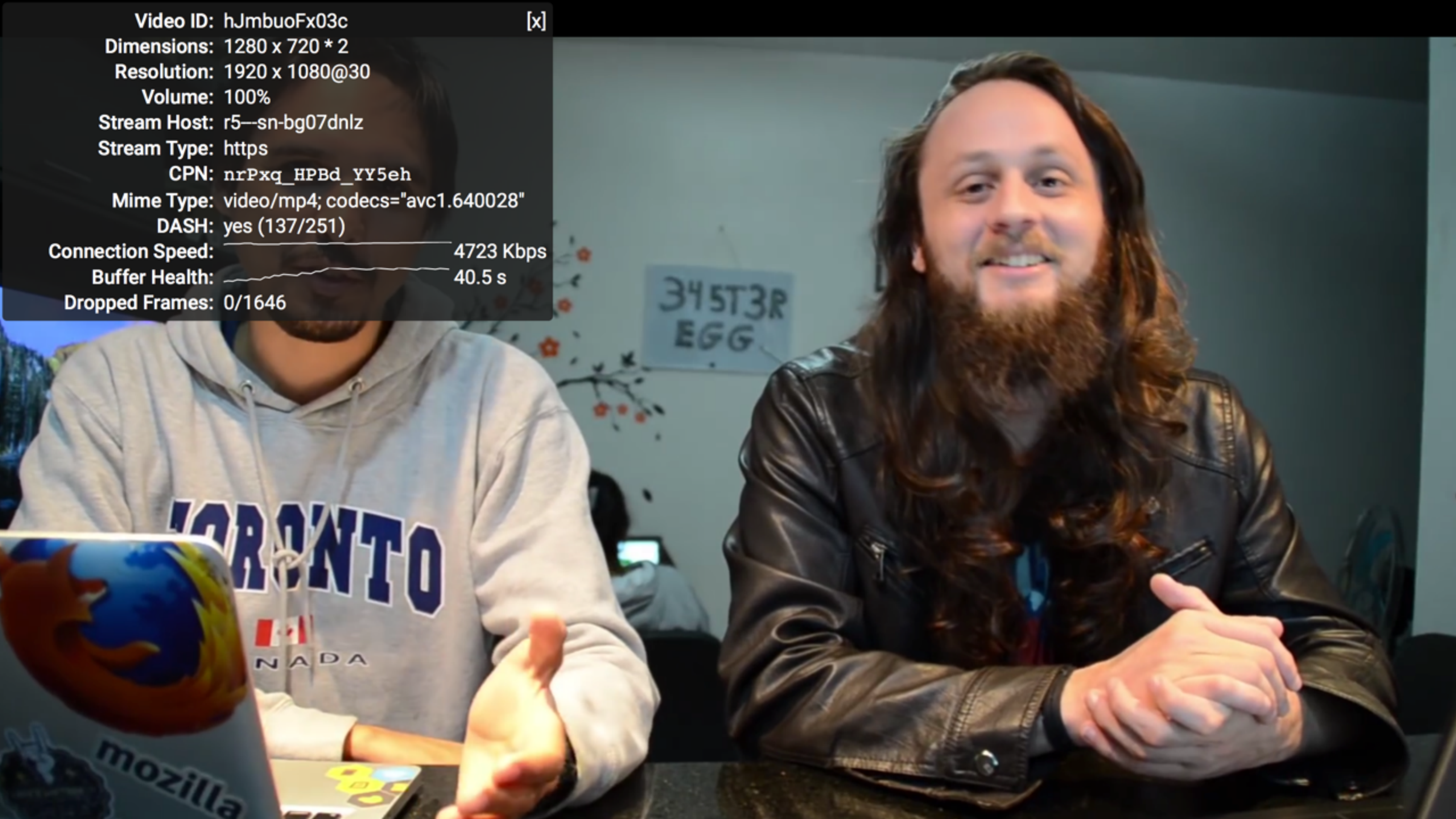
Mime Type: video/mp4; codecs="avc1.640028"

DASH: yes (137/251)

Connection Speed: 4723 Kbps

Buffer Health: 40.5 s

Dropped Frames: 0/1646





[x]

Video ID: hJmbuoFx03c

Dimensions: 1280 x 720 \* 2

Resolution: 1920 x 1080@30

Volume: 100%

Stream Host: r5--sn-bg07dnlz

Stream Type: https

CPN: nrPxq\_HPbd\_YY5eh

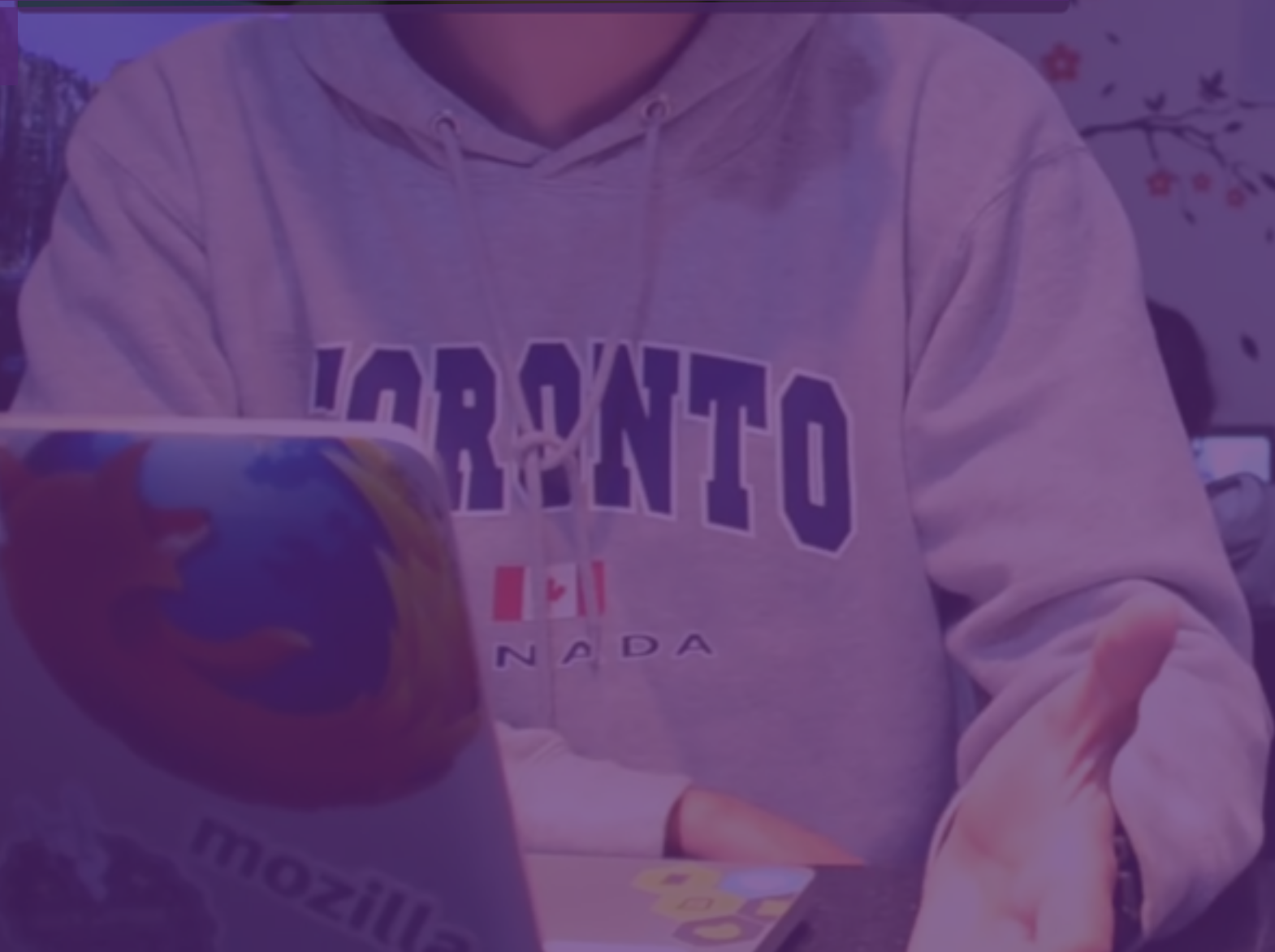
Mime Type: video/mp4; codecs="avc1.640028"

**DASH: yes (137/251)**

Connection Speed: 4772 Kbps

Buffer Health: 45.5 s

Dropped Frames: 0/2779







```
<video id="player" controls></video>
```

```
<script src="http://cdn.dashjs.org/latest/dash.all.min.js">  
</script>
```

```
<script>  
(function(){  
    var manifest = "http://braziljs.org/conf/manifest.mpd";  
    var player = dashjs.MediaPlayer().create();  
    player.initialize(  
        document.getElementById("#player"), url, true);  
})();  
</script>
```

```
<video id="player" controls></video>
```

```
<script src="http://cdn.dashjs.org/latest/dash.all.min.js">  
</script>
```

**Manifest file (XML)**

```
<script>  
(function(){  
    var manifest = "http://braziljs.org/conf/manifest.mpd";  
    var player = dashjs.MediaPlayer().create();  
    player.initialize(  
        document.getElementById("#player"), url, true);  
})();  
</script>
```



# Evolução da Web

*a Web como plataforma de vídeo ainda está evoluindo*



# Vídeo 360º

**obrigado,  !**

**@newtoncalegari**

**W3C Brasil  
Ceweb.br**