WebAssembly, WebComponents and media filters all at once

A proposal to open the Web to variety of formats

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Who are we?

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# Media content on the web

Before HTML 5
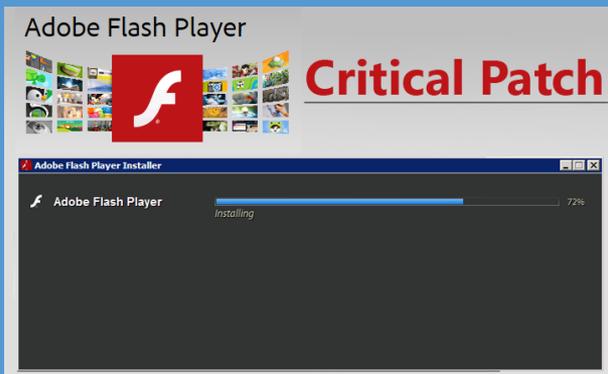
With HTML 5

```
<video controls>
 <source src="rabbit320.mp4" type="video/mp4" />
 <source src="rabbit320.webm" type="video/webm" />
 <p>
    Your browser doesn't support this video. Here
is a <a href="rabbit320.mp4">link to the video</a>
instead.
 </p>
</video>
```

Browsers are gate keepers

Browser format support

Source : https://caniuse.com
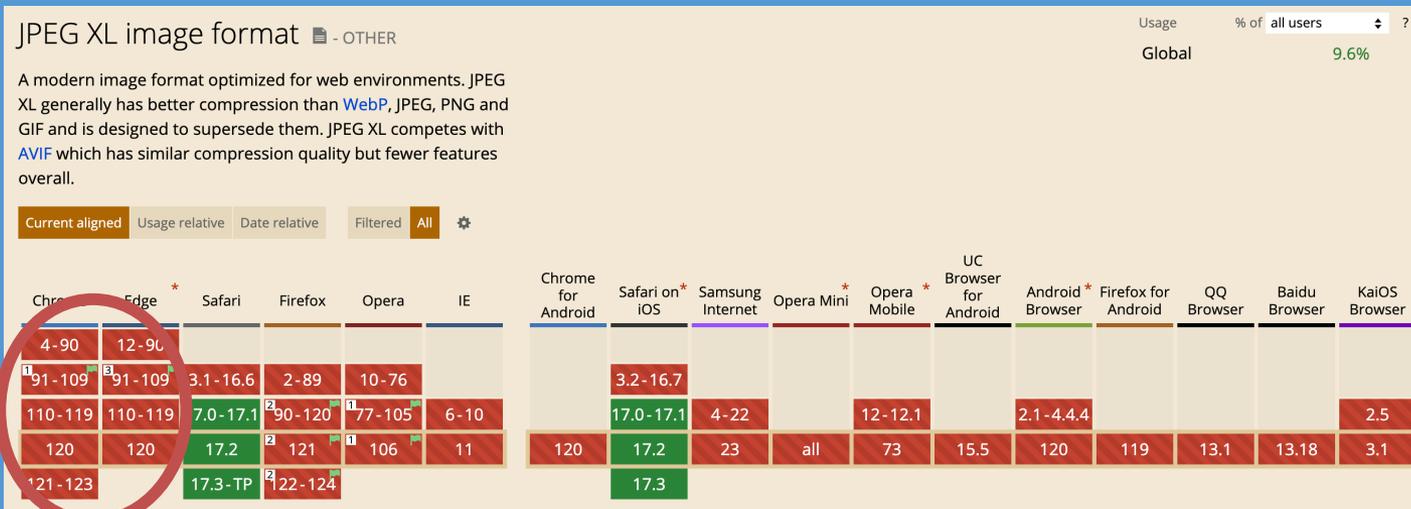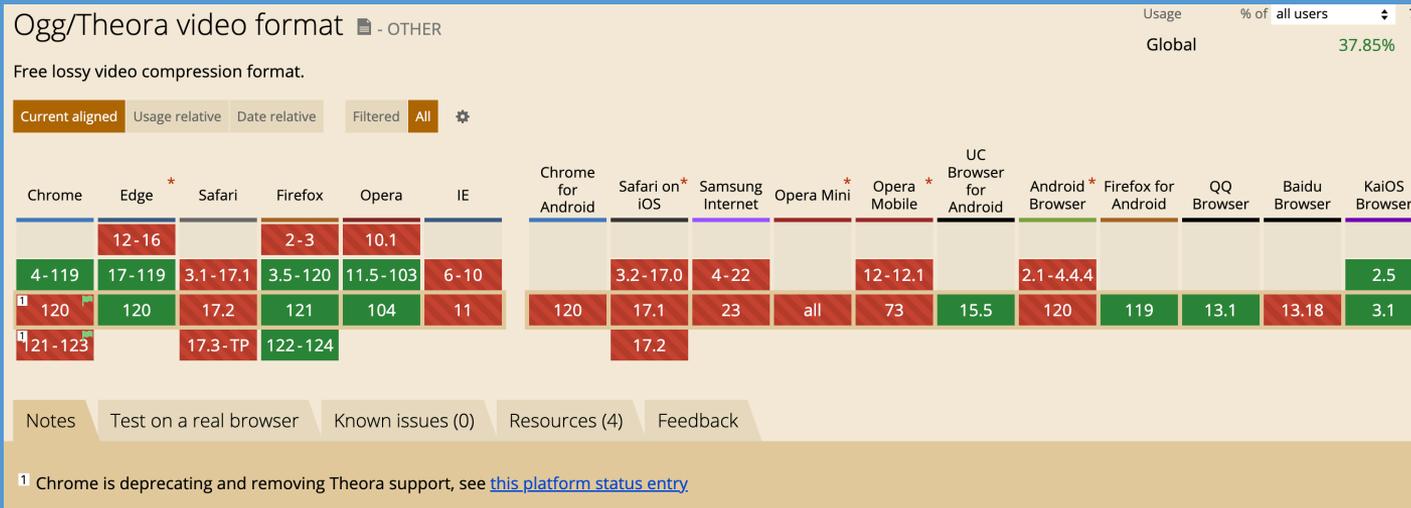
What we propose
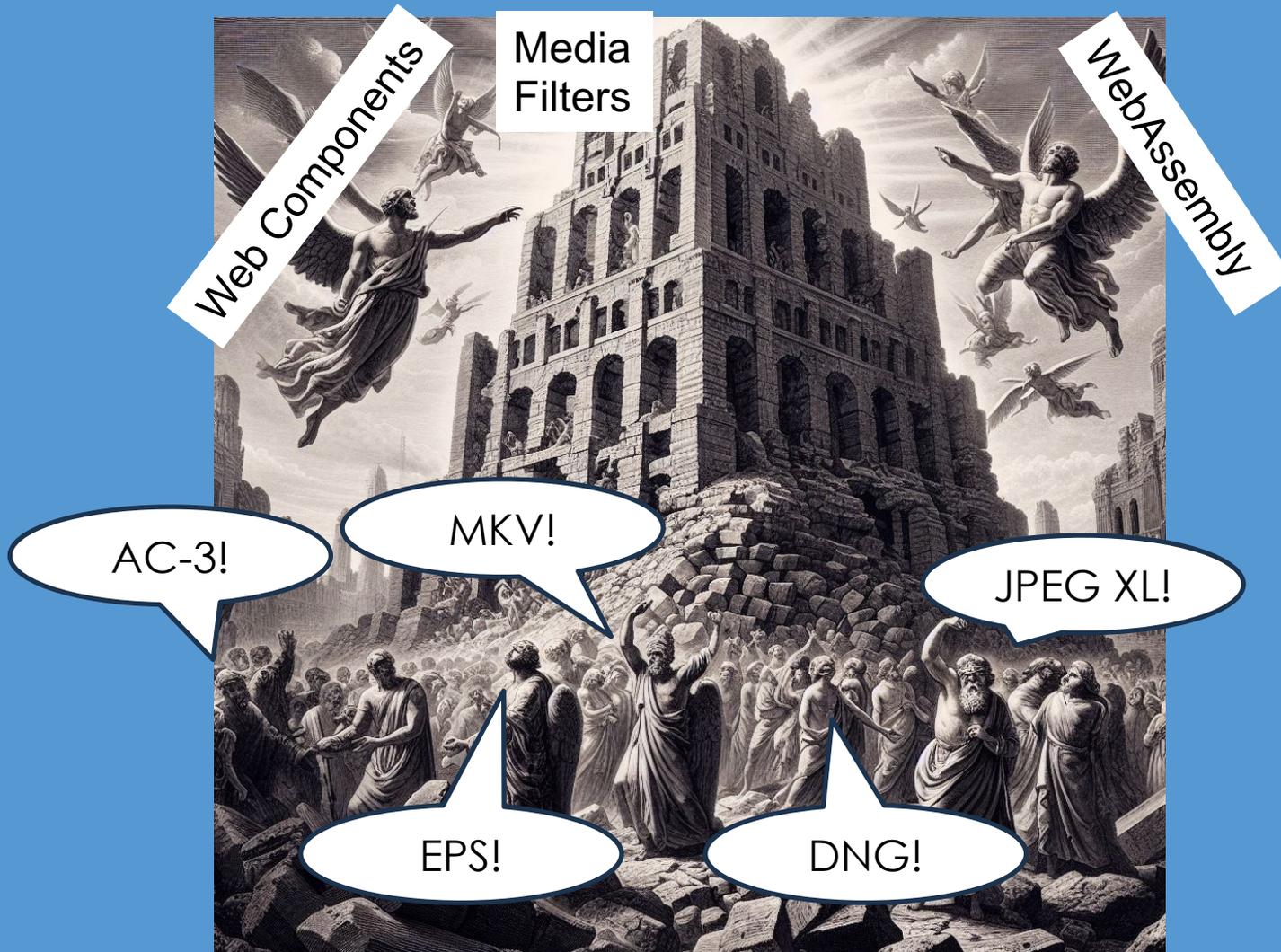
How it works: new elements

```
<video is="universal-video" src="rabbit320.mp4" controls />
```

WebComponents

```
class UniversalVideo extends HTMLVideoElement {
  (…)
}

if (!customElements.get('universal-video')) {
  customElements.define('universal-video', UniversalVideo,
  {extends: 'video' });
}
```

*universal-video.js*

How it works: Wasm filters

```
<video is="universal-video" using="xiph.org"
src="rabbit320.ogv" controls />
```
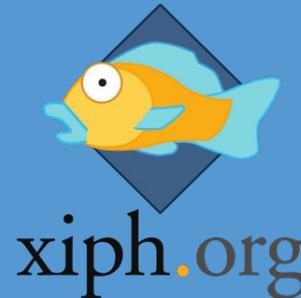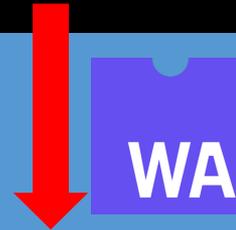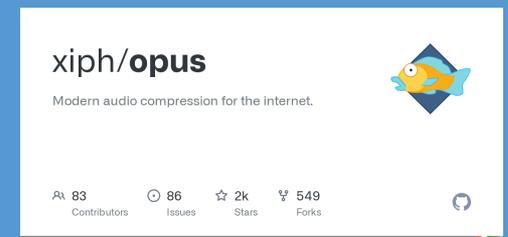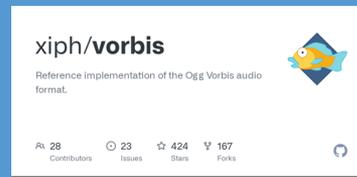
How it works: multi-filter chain

How it works: transcode for playback

```
<video is="universal-video" using="solver"
with="libmpeg1;libx264" src="medical_demo.mpg" controls />
```
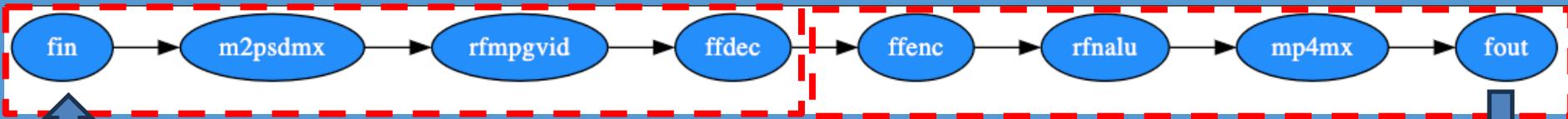
Demo with/without universal tags

https://bevara.com/home-demo-no-accessors/

https://bevara.com

J2k image
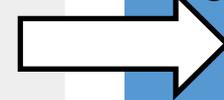
JXL image

Dolby digital ac3

MPEG-1 video

Bevara access

Where to find us

Site

https://bevara.com

Repos

https://github.com/Bevara/Editor ➡️ **VS Code plugins**

https://github.com/Bevara/Interface ➡️ **Testing interface**

https://github.com/Bevara/filters ➡️ **Filters SDK**

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Questions?