Web XR

Offspring of two worlds

Diego González, PhD (@diekus)
Chromium based
Android browser
Version 7.2 launched
Access to latest web technologies

Progressive Web Apps
Web Speech API
Web Bluetooth
Web Payments
Gamepad API
Physical Web
CSS Grid
WebXR API

…
VR

pre-approved closed environment

wait several minutes
download 100s of MBs
experience you discard after 1 use
There’s surely a **different** way of doing this. It needs to be more **frictionless**, **faster**, and **progressive**. But it can also be **open** and **cross-device**, allowing for a **better** experience.
Web

better
open
cross-device
different
frictionless
faster
progressive
What is WebXR?

“This specification describes support for accessing virtual reality (VR) and augmented reality (AR) devices, including sensors and head-mounted displays, on the Web”

Source: https://immersive-web.github.io/webxr/
browser support
hardware support

• Magic Window
• 3 DoF (orientation)
• 6 DoF (orientation + position)
• Controllers
• WebSpeech API*
<table>
<thead>
<tr>
<th>Product</th>
<th>Samsung Internet</th>
<th>Firefox</th>
<th>Chromium</th>
<th>Chrome</th>
<th>Oculus Browser</th>
<th>Edge</th>
<th>Servo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung Gear VR</td>
<td>✓</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Google Cardboard</td>
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<tr>
<td>Daydream</td>
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<td>✓</td>
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<tr>
<td>Oculus</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>VIVE</td>
<td></td>
<td>✓</td>
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<tr>
<td>Windows Mixed Reality</td>
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</tbody>
</table>

* Compatible with WebVR

source: webvr.rocks
... and why does this matter?
discoverability  reach  ubiquitous/immediate  social  new creators
Physical Web
QR Codes
Progressive Web Apps

discoverability
reach
ubiquitous/immediate
social
new creators
Progressive Web Apps

- Icon on homescreen
- Independent of network and connectivity.
- Frictionless experiences by design.
- Preload Assets (Audio, Video)
- Automatic ingestion into app stores
From a physical object to the browser to your home screen to your headset.
Widest delivery network in existence

@diekus   @samsunginternet

New creators
Reachability
Ubiquitous/immediate
Social

Progressive enhancement

discoverability  reach  ubiquitous/immediate  social  new creators

Samsung Internet
discoverability, reach, ubiquitous/immediate

Networked A-Frame

https://metaverse.samsunginter.net

@Lady_Ada_King

https://hungry-pandas.glitch.me

@diekus, @uveavanto, @poshaughnessy

new creators

social

PEERJS

WebRTC
Accessible platform for creatives, developers and makers

three.js  React VR  Vizor  aws
Ava, by Achavanich Beaker Burial and Samsung Internet

https://samsunginter.net/ava
“it’s so full of niceness”

Explorathon, September 2017
Museum of Scotland
Web + VR = ❤️

- Democratize XR
- Help commoditize XR
- Can use a flexible tech stack
- Enable innovative experiences

discoverability  ubiquitous/immediate
reach  new creators
social  samsung WEBXR
eat. sleep. Vrowse. repeat