Beyond Playback: The Path To Full Featured HTML5 Video Experiences

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About Me

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Opening statements

- HTML5 is unquestionably the future of the web
- We are all collateral damage in a platform war
- HTML5 is today where Flash was in 2002
- Playback is just a small part of the problem
- Flash is good. You should use it.
- Be pragmatic, not dogmatic
What is HTML5?

- A new standard for structuring and presenting content on the Web
- Allows “no-plugin” video, audio, and vector graphics
- Initiated by Apple, Mozilla, Google, and Opera, now adopted by W3C
- The future of the web
HTML5 is supported in just over 40% of all browsers.

- Microsoft Internet Explorer 8.0, 33.06%
- Microsoft Internet Explorer 7.0, 7.35%
- Microsoft Internet Explorer 6.0, 10.85%
- Firefox 3.6, 13.52%
- Firefox 4.0, 5.43%
- Chrome 10.0, 9.91%
- Chrome 9.0, 0.32%
- Chrome 8.0, 0.36%
- Chrome 7.0, 0.12%
- Chrome 6.0, 0.19%
- Safari 5.0, 4.55%
- Safari 4.0, 1.42%
- Opera 11.x, 1.65%
- Opera 10.x, 0.37%
- Microsoft Internet Explorer 9.0, 2.41%
- 24 Other Versions, 5.92%
What’s Missing in the HTML5 Specification?

- Video codecs
- Streaming protocols
- Adaptive multi-bitrate
- Live streaming
- DRM
- Player experience
Which Container Format and Video Codec?

<table>
<thead>
<tr>
<th>High Quality/Efficiency</th>
<th>Proprietary</th>
<th>Free &amp; Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.264</td>
<td>webm</td>
<td>Theora ogg</td>
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Large platform vendors use codecs as weapons

<table>
<thead>
<tr>
<th>Codec</th>
<th>Apple</th>
<th>Google</th>
<th>Microsoft</th>
<th>mozilla foundation</th>
<th>Adobe</th>
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<tbody>
<tr>
<td>H.264</td>
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*Note: The symbols represent compatibility or support for each technology across different companies.*
There is no single combination of containers and codecs that works in all HTML5 browsers.

This is not likely to change in the near future.

To make your video watchable across all of these devices and platforms, you're going to need to encode your video more than once.

For maximum compatibility, here's what your video workflow will look like:

1. Make one version that uses WebM (VP8 + Vorbis).
2. Make another version that uses H.264 baseline video and AAC “low complexity” audio in an MP4 container.
3. Make another version that uses Theora video and Vorbis audio in an Ogg container.
4. Link to all three video files from a single `<video>` element, and fall back to a Flash-based video player.
Today HTML5 is most relevant for reaching mobile devices
VINE STORIES
THE STORY BEHIND THE BOTTLE

CALIFORNIA
Santa Barbara County Wineries
Longoria Wines
Lompoc, CA

Click Thumbnails
To Play Video

VineStories.com © 2010
Ground Zero: Inside the Park51 Mosque

Related Topics: Religion • U.S.
Basic playback is a tiny part of modern video experiences.
Infinite History

Over the past few years, the MIT150 Infinite History project team has collected the first-person recollections of more than one hundred people who have shaped — or been shaped by — MIT. These individuals have made extraordinary contributions to their fields and to MIT and they include Institute leadership, faculty, alumni, staff, and friends.

Please visit us again, as we continue to populate this section with new interviews.
Three Key Considerations for HTML5 Video

- Use Flash wherever it is available
  - Superior tooling, skill availability, content protection, interactivity, and functionality on desktops and the latest Android / RIM devices
  - HTML5 can fill gaps on iOS and non-Flash Android / RIM devices

- Encode your video in H.264
  - H.264 works across both Flash and most HTML5 environments
  - Keep an eye on the WebM battle between Google and Apple

- Expect extra development effort for advertising in HTML5 video
Thank you.