HTML5:
The Making of the Modern
Web Platform

Michael[tm] Smith
Tokyo, mike@w3.org
people.w3.org/mike/+
@sideshowbarker, @html5

Chaals
(Charles McCathieNevile)
w3b@chaals.com

Yandex - Яндекс

@chaals

Where are we now?

The Web is 20 years old.

We are still in the very early years of the Web.

We are building a *platform for the future*.

This platform will remain a core part of the worlds of your children and your children's children.

We call this platform the *Open Web Platform*.

For convenience, we currently sometimes call this platform "HTML5".

"HTML5" is mostly about adding new programming features to the platform.

The Web Platform is a runtime environment for Web applications.

The HTML5 work is about exposing more device features to Web applications.

Progress report?

What really matters?

- New browser technologies
- Implementation
- Deployment
- Interoperability

We currently have *more than 50 specs in development* that define *new browser technologies.*

Some sites with more info about "Where we are now?"…

w3.org/Mobile/mobile-web-app-state/

w3.org/brief/Mjkw

platform.html5.org

html5please.com

caniuse.com

html5accessibility.com

Where's the excitement?

Mobile.

New(est) features for mobile

- Device orientation
- Media capture (webcam +mic)
- Proximity events
- Network information API

DeviceOrientation demo
http://goo.gl/UVNEJ

Other mobile features

- Geolocation
- Battery status
- Vibration API
- Touch events

Gaming

New(est) features for gaming

- Web Audio
- Fullscreen
- Pointer lock
- Touch events

Other features for gaming

- Device orientation
- Screen orientation
- Gamepad API
- WebGL

Boring...

Boring to non-programmers

- Web Workers
- File API
- Web Sockets
- Typed Array

Tools

Better development tools.

- *Built-in browser Web-dev tools*
- *Remote debugging for mobile*
- *CodeMirror, Brackets, etc.*
- *Adobe Edge Animate, etc.*
- *Emscripten (C++ to JS)*
- *Flash-to-JavaScript (Swiffy)*

Hot topics...

Hot topics

- Adaptive streaming and DRM
- Responsive images
- Fixing HTML5 appcache
- WebRTC and Web Audio
- Indexed Database

Adaptive streaming and DRM…

Media Source Exts.:
Allows JavaScript to generate media streams for playback; facilitates adaptive streaming and time shifting live streams.

Encrypted Media Exts: Enables playback of protected content; that is, decryption using license/key exchange.

Responsive images

- <img srcset...> vs <picture>/<source>
- <picture> proposal came from community
- Microsoft supporting <picture> proposal
- Other browser vendors like srcset better
- Convergence?

Fixing HTML5 appcache

- Facebook, Financial Times, others
- See Andrew Betts' writeup
- Web-platform work is iterative
- Deployment leads to refinements

WebRTC

- A must-have, period.
- Disagreement on API
- No convergence yet :-(
- Hard work to implement

Web Audio

- A must-have for gaming
- Disagreement on API
- Convergence
- Hard work to implement

Indexed Database

- Convergence :-)
- Complex to use :-(
- Not in mobile yet.
- Quotas…

The triumph of CSS…

The virtues of CSS

- Declarative (vs procedural)
- Make the easy things easy
- Make the hard things easier
- Turn designers into animators

The new rock stars of CSS

- Transforms
- Transitions
- Animations
- Filters, masks, more to come

You don't need to be a procedural programmer to make dynamic Web content.

The HTML WG is splitting the HTML spec into two branches:

- *HTML5*
- *HTML.Next*

HTML5

- *"Release" branch*
- *Feature-frozen*
- *Stable*
- *Recommendation in 2014*

HTML.Next

- *"Development" branch*
- *Open to new features*
- *Unstable*

The HTML WG will *work on both branches in parallel.*

New editors

- *4 new editors for HTML5 and HTML.Next*

- *4 new editors from the Canvas 2D API spec*

- *1 new "lead editor"*

Increased resources

- *Funding from Adobe, Microsoft, Google*
- *New editors*
- *Move to Rec faster*

Thank you.

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