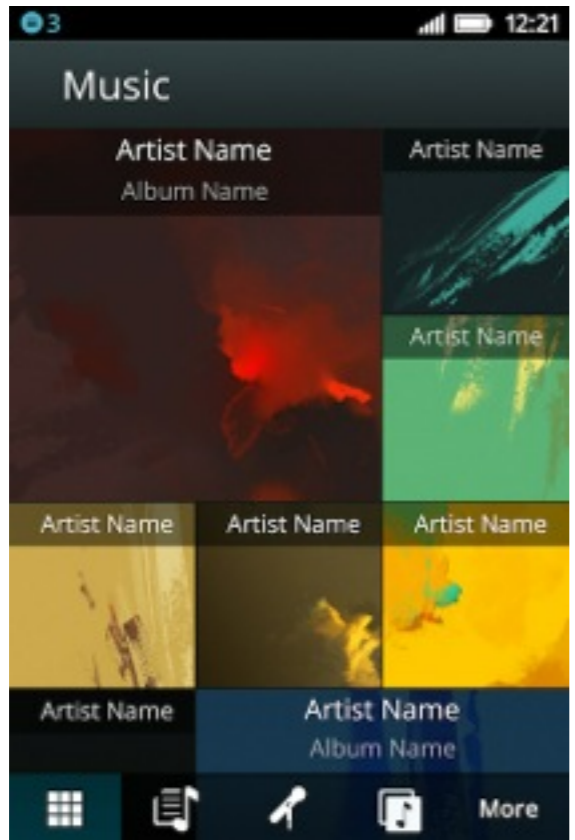
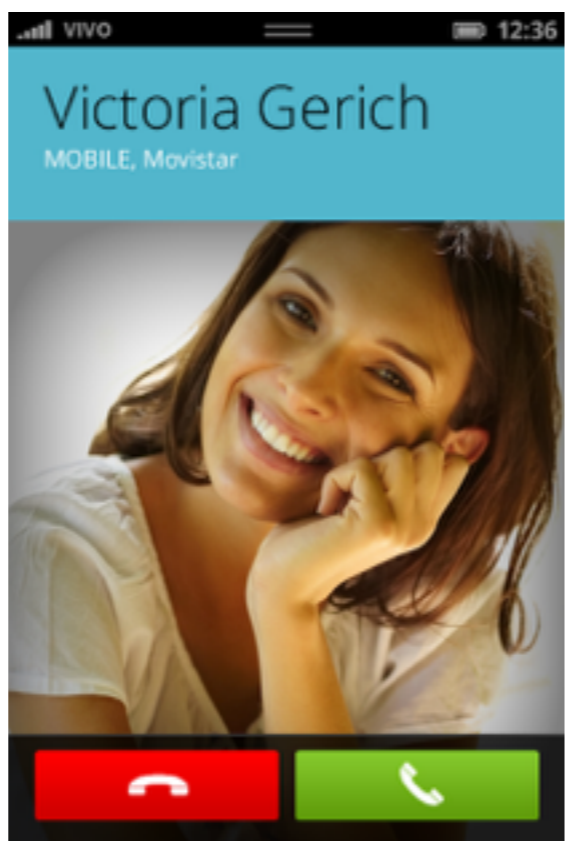
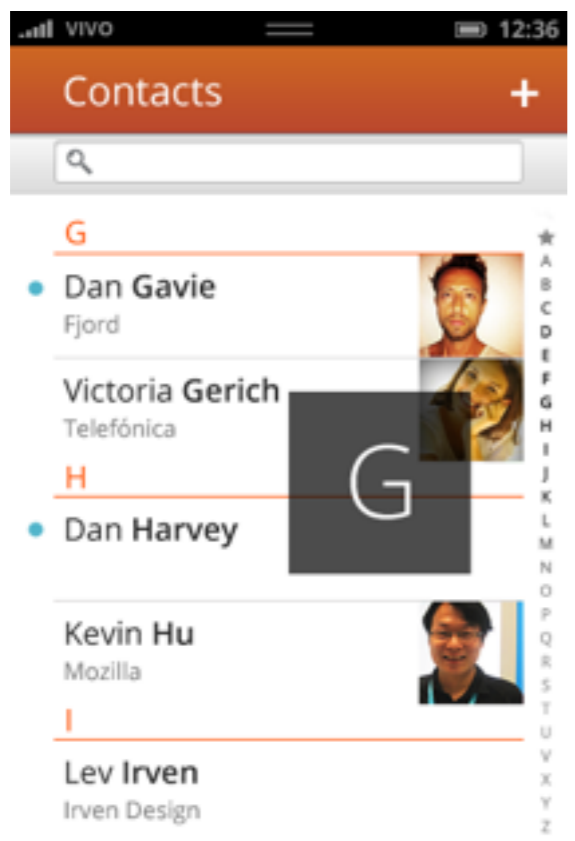


プラットフォームとしての HTML5

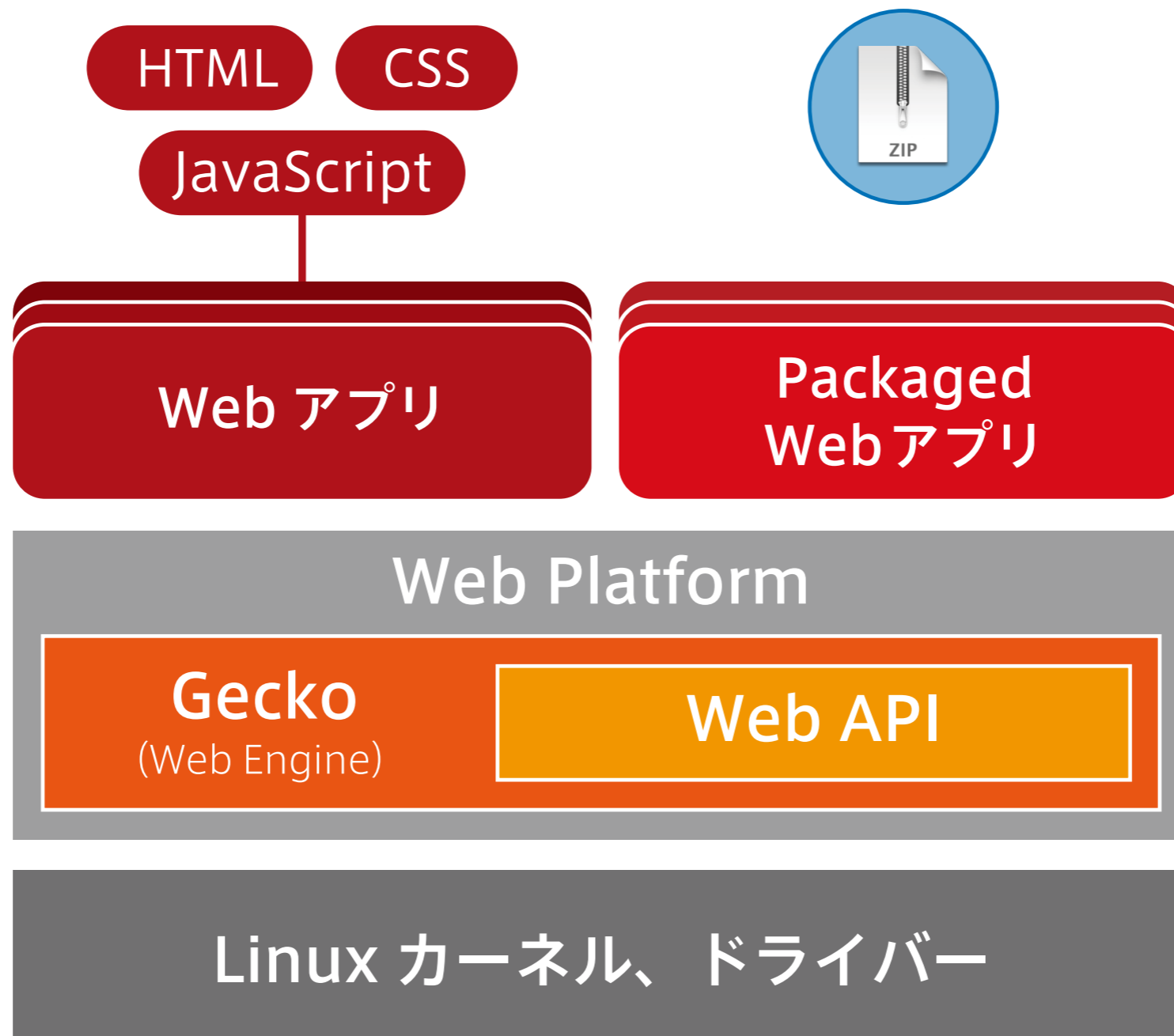
清水智公 (nshimizu@mozilla-japan.org)

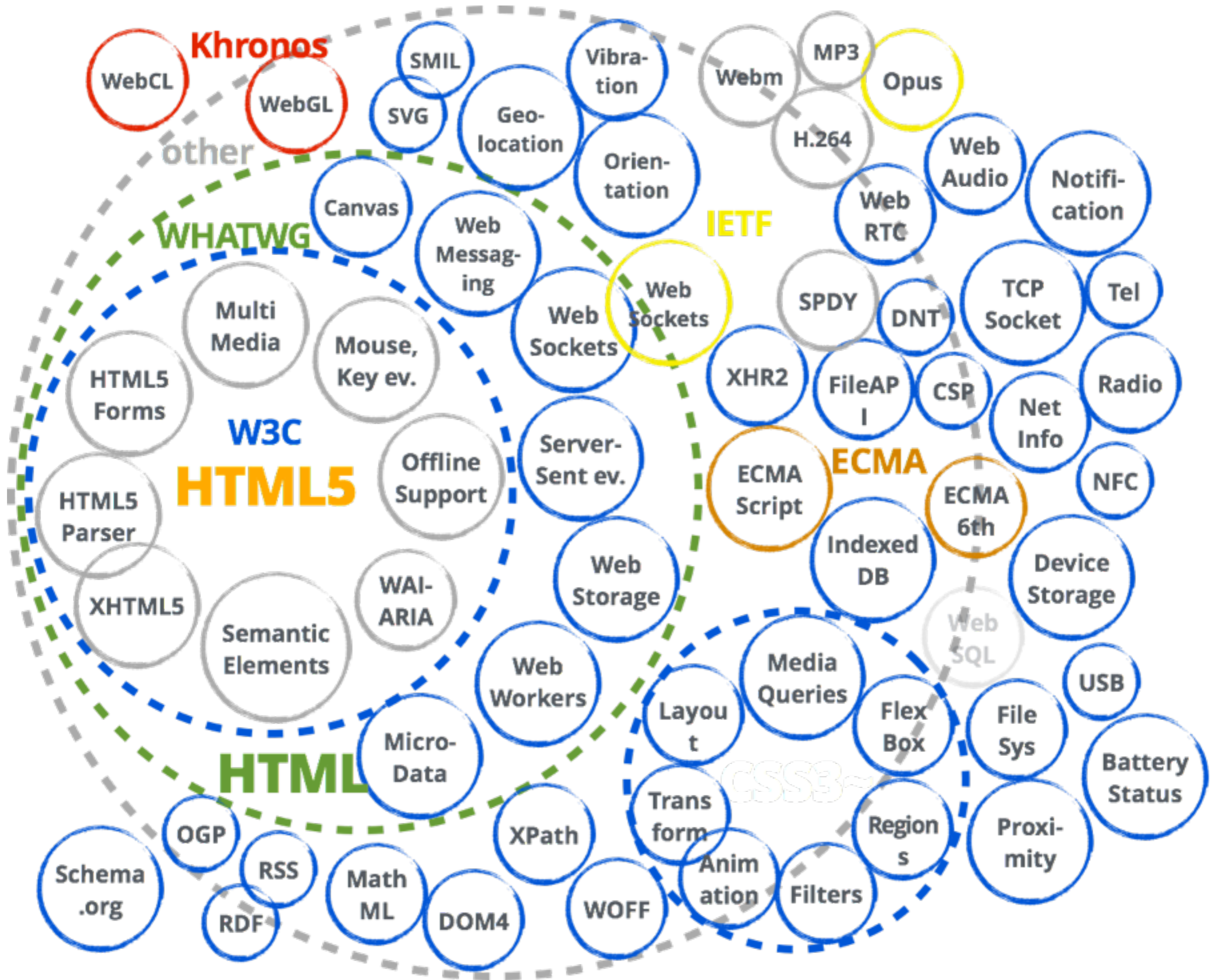
2013/11/27





Firefox Marketplace



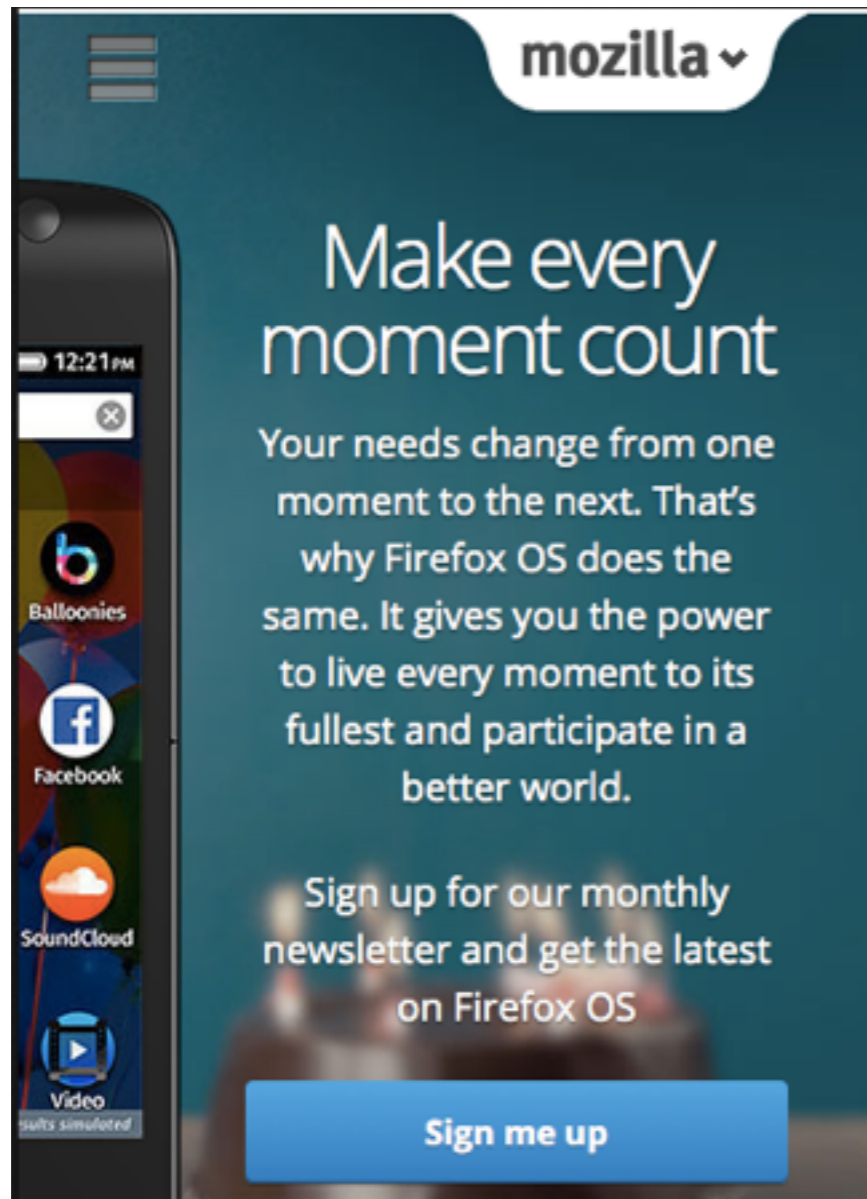


表現

表現

- 新しい入力フォーム
- メディアクエリ
- Web フォント、流し込み
- 角丸、ドロップシャドウ、グラデーション
- アニメーション、トランジション

メディアクエリ



mozilla ▾

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12:21 PM

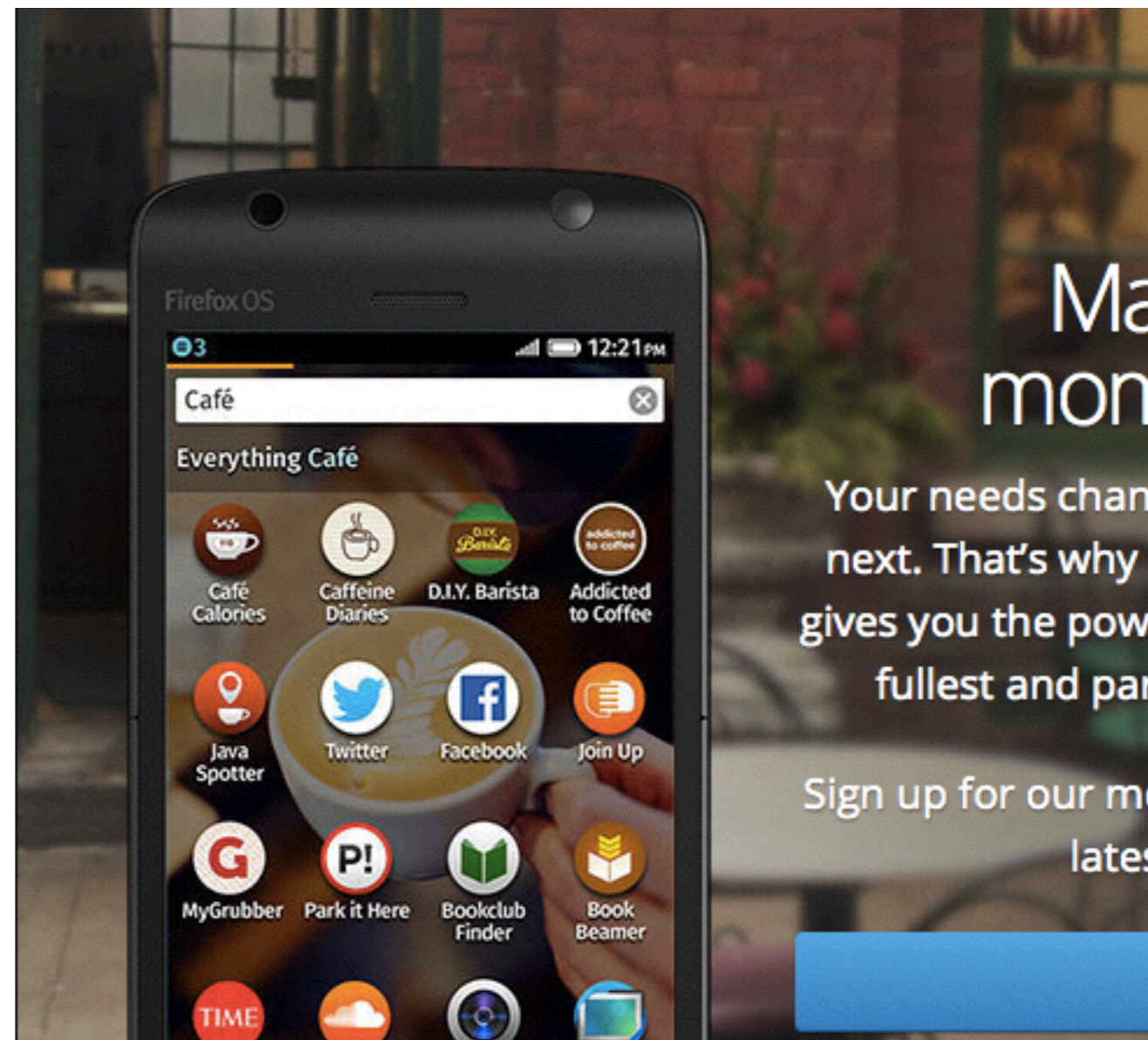
Balloonies

Facebook

SoundCloud

Video

suity simulated



Firefox OS

03 12:21 PM

Café

Everything Café

- Café Calories
- Caffeine Diaries
- D.I.Y. Barista
- Addicted to Coffee
- Java Spotter
- Twitter
- Facebook
- Join Up
- MyGrubber
- Park it Here
- Bookclub Finder
- Book Beamer
- TIME

Ma
mon

Your needs chan
next. That's why
gives you the pow
fullest and par

Sign up for our m
lates

[Sign me up](#)

Web フォント

www.google.com/fonts/

Normal 400

Grumpy wizards make toxic brew for the evil Queen and Jack.

Kite One, 1 Style by [Eduardo Tunni](#)



Add to Collection

Normal 400

Grumpy wizards make toxic brew for the evil Queen and Jack.

Pathway Gothic One, 1 Style by [Eduardo Tunni](#)



Add to Collection

Normal 400

Grumpy wizards make toxic brew for the evil Queen and Jack.

Fauna One, 1 Style by [Eduardo Tunni](#)



Add to Collection

文字の流し込み

<http://html.adobe.com/webplatform/layout/shapes/>

Once upon a
midnight dreary, while I
pondered weak and weary, Over many
a quaint and curious volume of
forgotten lore, While I nodded,
nearly napping, suddenly there
came a tapping, As of some one
gently rapping, rapping at my chamber
door. 'Tis some visitor,' I muttered,
'tapping at my chamber door - Only this, and
nothing more.' Ah, distinctly I remember it was in
the bleak December, And each separate dying ember
wrought its ghost upon the floor. Eagerly I wished the
morrow, - vainly I had sought to borrow From my books
surcease of sorrow - sorrow for the lost Lenore - For the
rare and radiant maiden whom the angels name Lenore -
Nameless here for evermore. And the silken sad uncertain
rustling of each purple curtain Thrilled me - filled me with
fantastic terrors never felt before; So that now, to still the
beating of my heart, I stood repeating 'Tis some visitor
entreating entrance at my chamber door - Some late visitor
entreating entrance at my chamber door; - This it is, and
nothing more,' Presently my soul grew stronger;
hesitating then no longer, 'Sir,' said I, 'or Madam, truly
your forgiveness I implore; But the fact is I was
napping, and so gently you came rapping, And so
faintly you came tapping, tapping at my chamber
door, That I scarce was sure I heard you' - here I
opened wide the door; - Darkness there,
and nothing more. Deep into that
darkness peering, long I stood
there wondering, fearing,
Doubting, dreaming
dreams no mortal ever
dared to dream before;
But the silence was
unbroken, and the
darkness gave no
token, And the only



The first successful North American transcontinental
trip by automobile took place in 1903, and was piloted

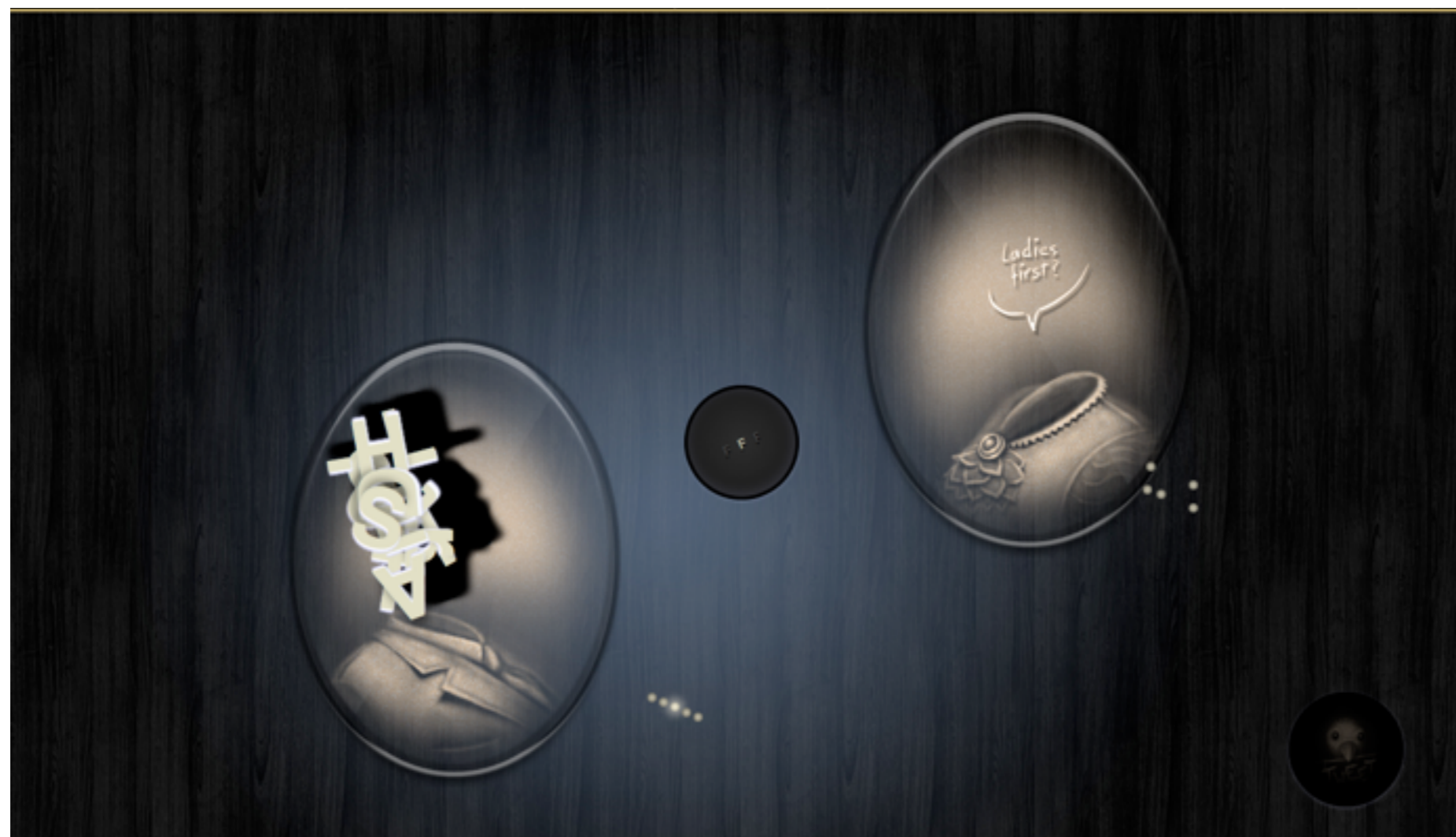
...on the lost art of the great American
road trip

by H. Nelson Jackson and Sewall K. Crocker,
accompanied by a canine named Bud. The trip was
completed using a 1903 Winton Touring Car, dubbed
"Vermont" by Jackson. The trip took a total of 63 days
between San Francisco and New York, and cost
US\$8,000. The total cost included items such as food,
gasoline, lodging, tires, parts, other supplies, and
the cost of the Winton.

The first woman to cross the American landscape by

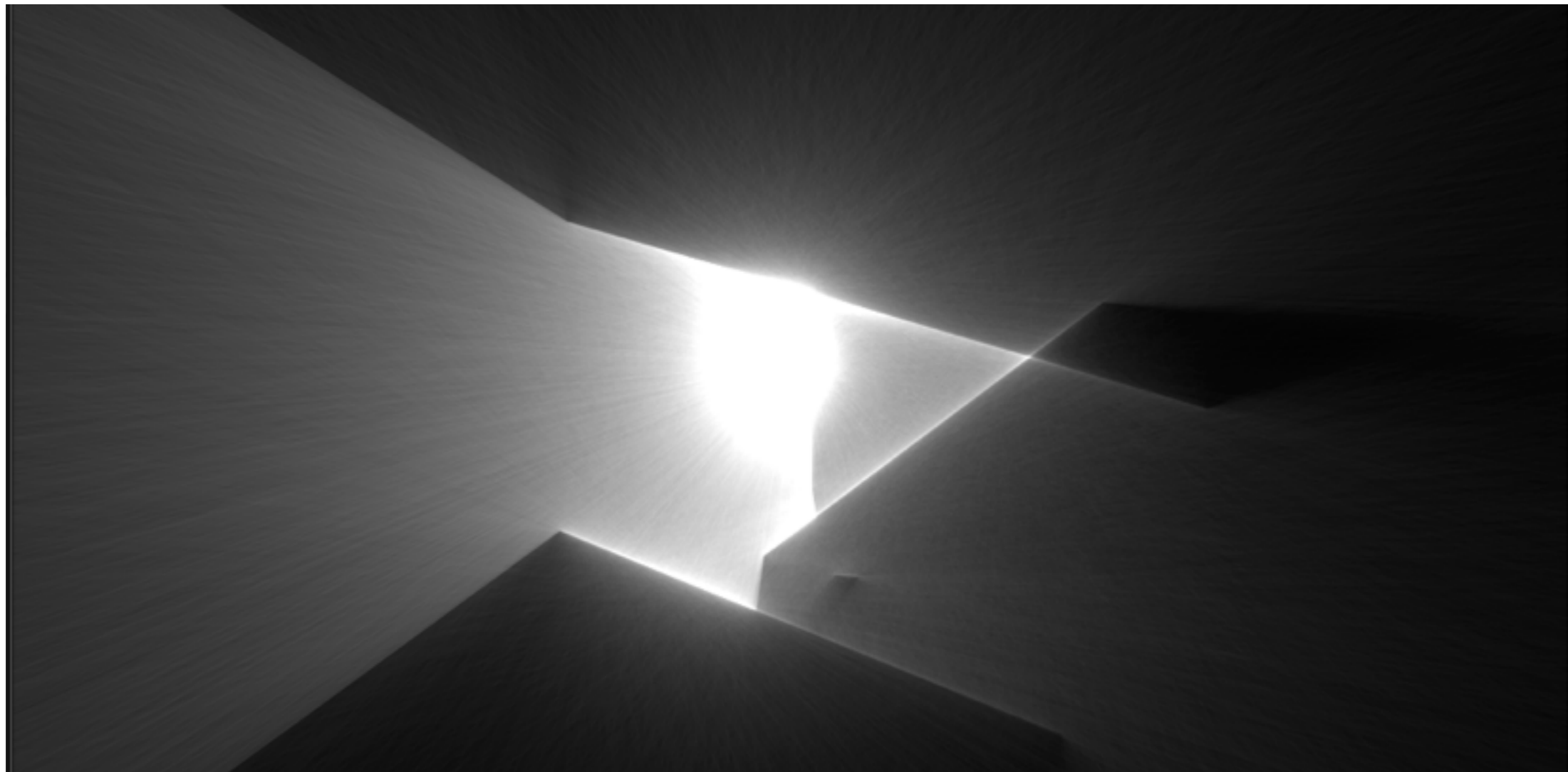
Web フォント × ドロップシャドウ

<https://developer.mozilla.org/ja/demos/detail/the-letter-heads/>



Canvas 上でのレイトレーサー

<https://developer.mozilla.org/ja/demos/detail/zen-photon-garden>



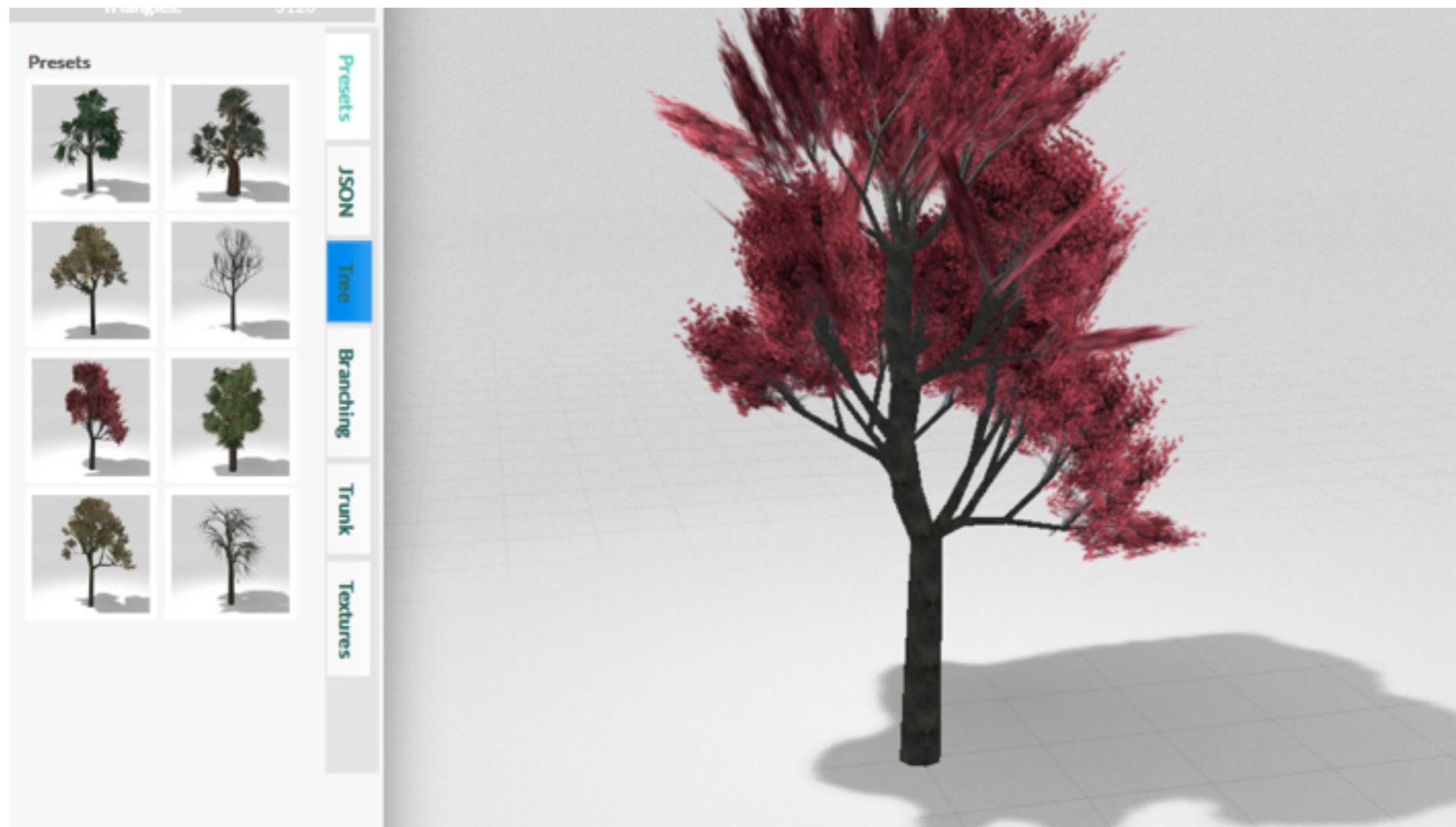
Scalable Vector Graphics

http://upload.wikimedia.org/wikipedia/commons/2/2c/Moscow_metro_map_en_sb.svg



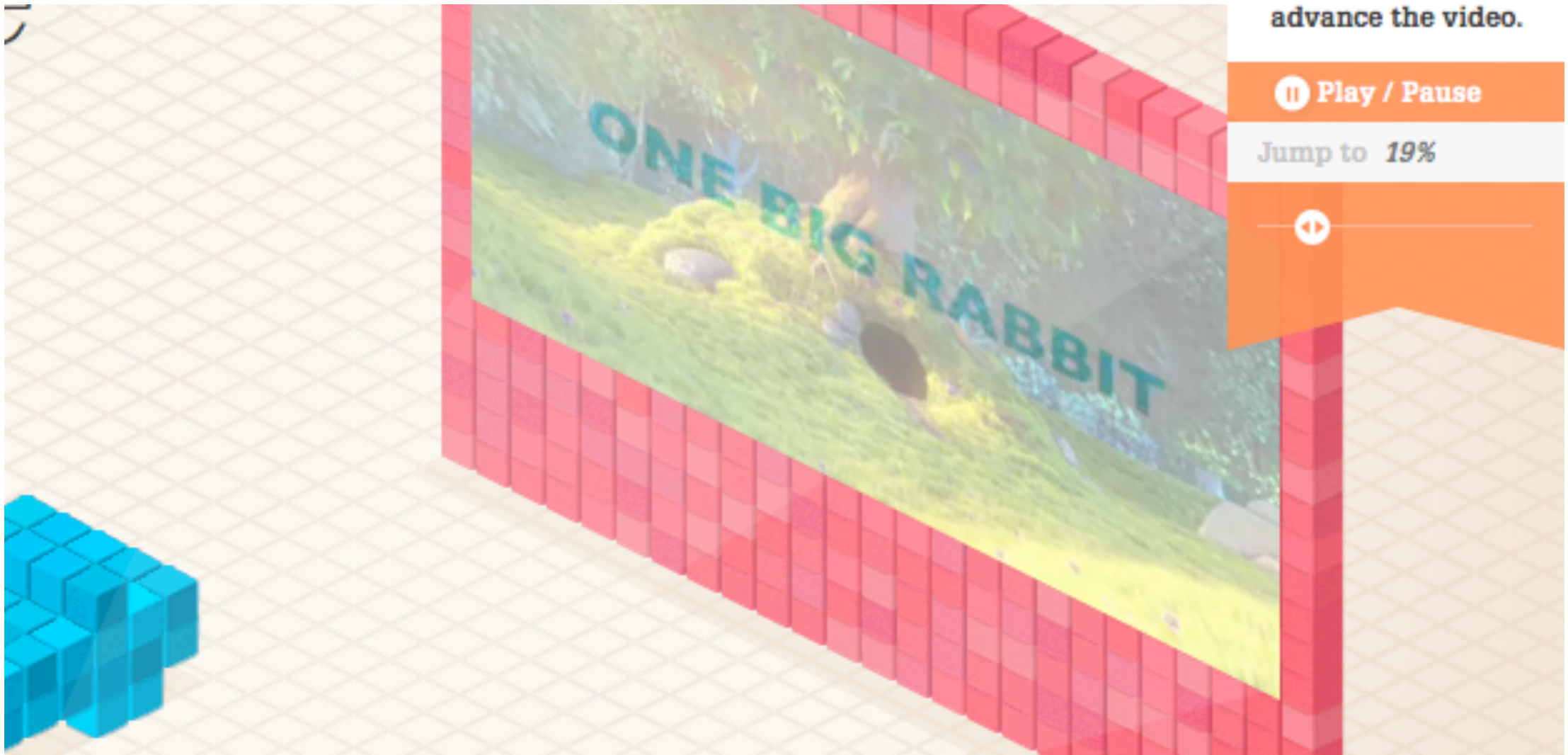
WebGL

<https://developer.mozilla.org/ja/demos/detail/snappytree/launch>



ビデオの再生

<http://beta.theexpressiveweb.com/#!/html5-video>



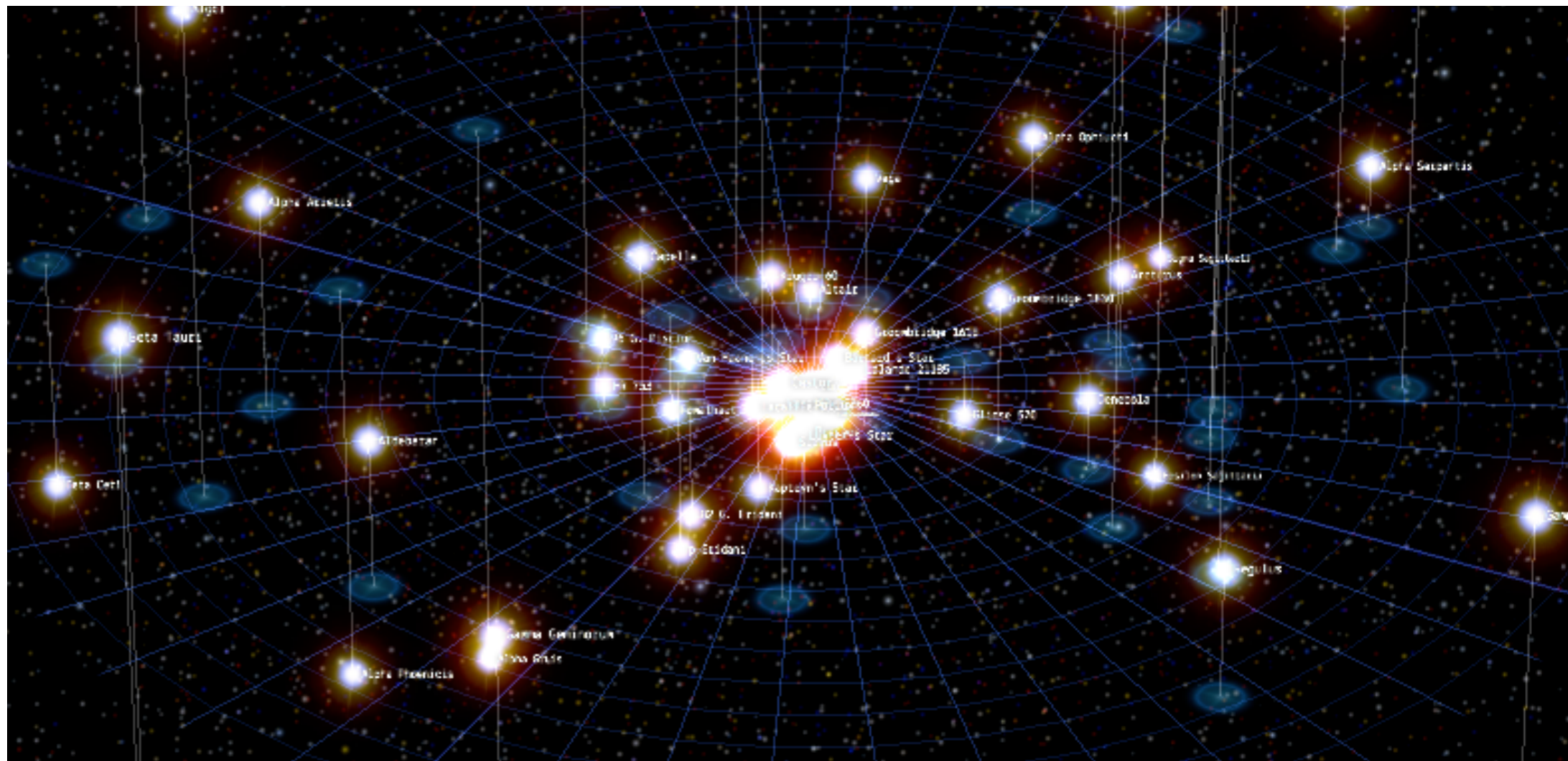
3D 立体音響

<http://www.html5rocks.com/ja/tutorials/webaudio/games/>



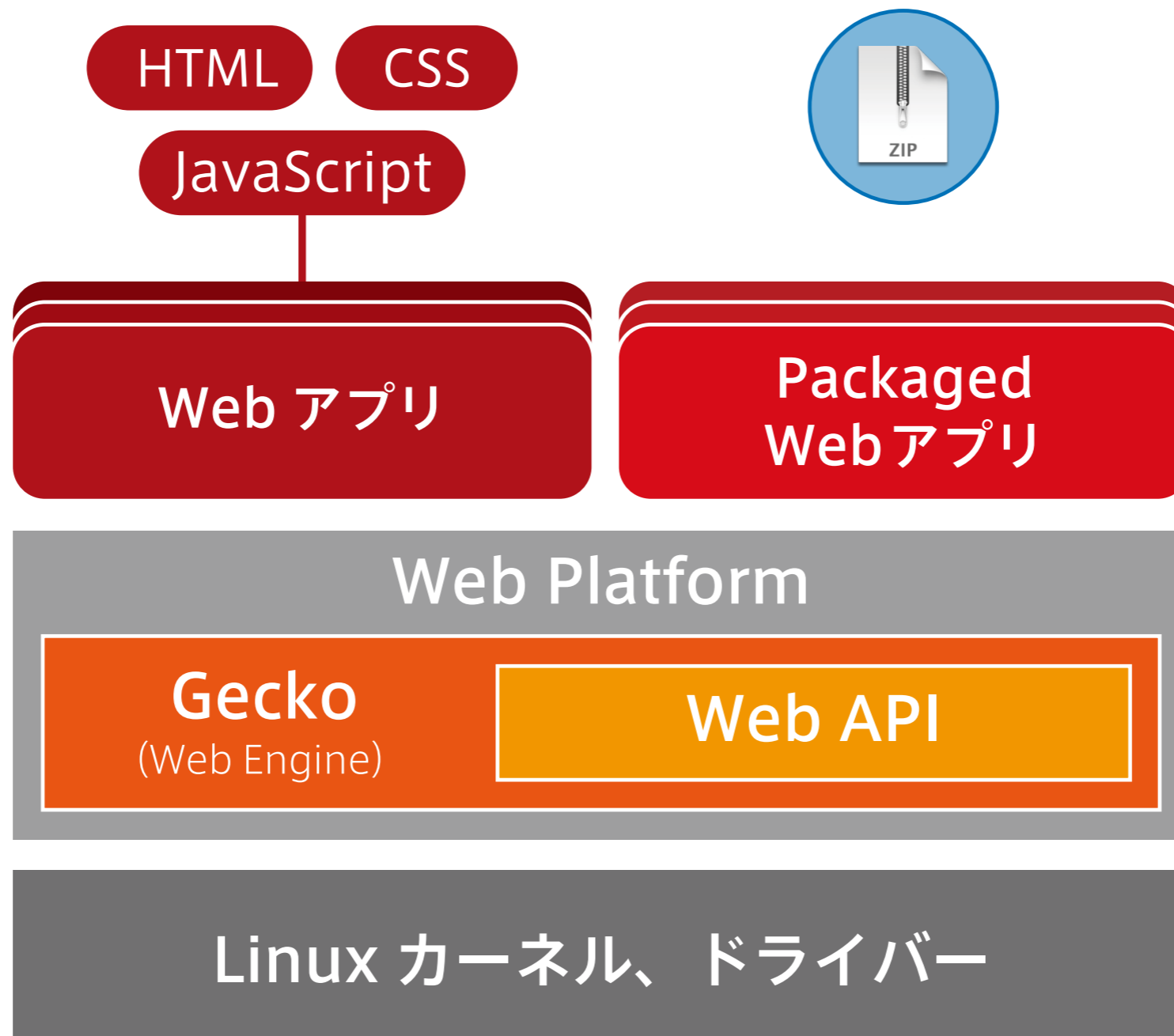
Web GL × WebオーディオAPI

<http://www.chromeexperiments.com/detail/100000-stars/>



<http://www.chromeexperiments.com>

Web がネイティブ



ハードウェア

- タッチデバイス
- GPS
- 光センサー
- カメラ
- 近接センサー
- 加速度センサー
- FMラジオ
- バッテリー
- 電源管理
- バイブ

データ管理

- ファイル
- Indexed DB
- デバイスストレージ
- コンタクトリスト

コミュニケーション

- Bluetooth
- TCP ソケット
- 通話管理
- SMS
- ネットワークへの接続状況

Battery API

<http://robnyman.github.io/battery/>

Battery API

A demo of the Battery API, currently implemented in Firefox.

Battery level is **100%**

Battery status is **not charging**

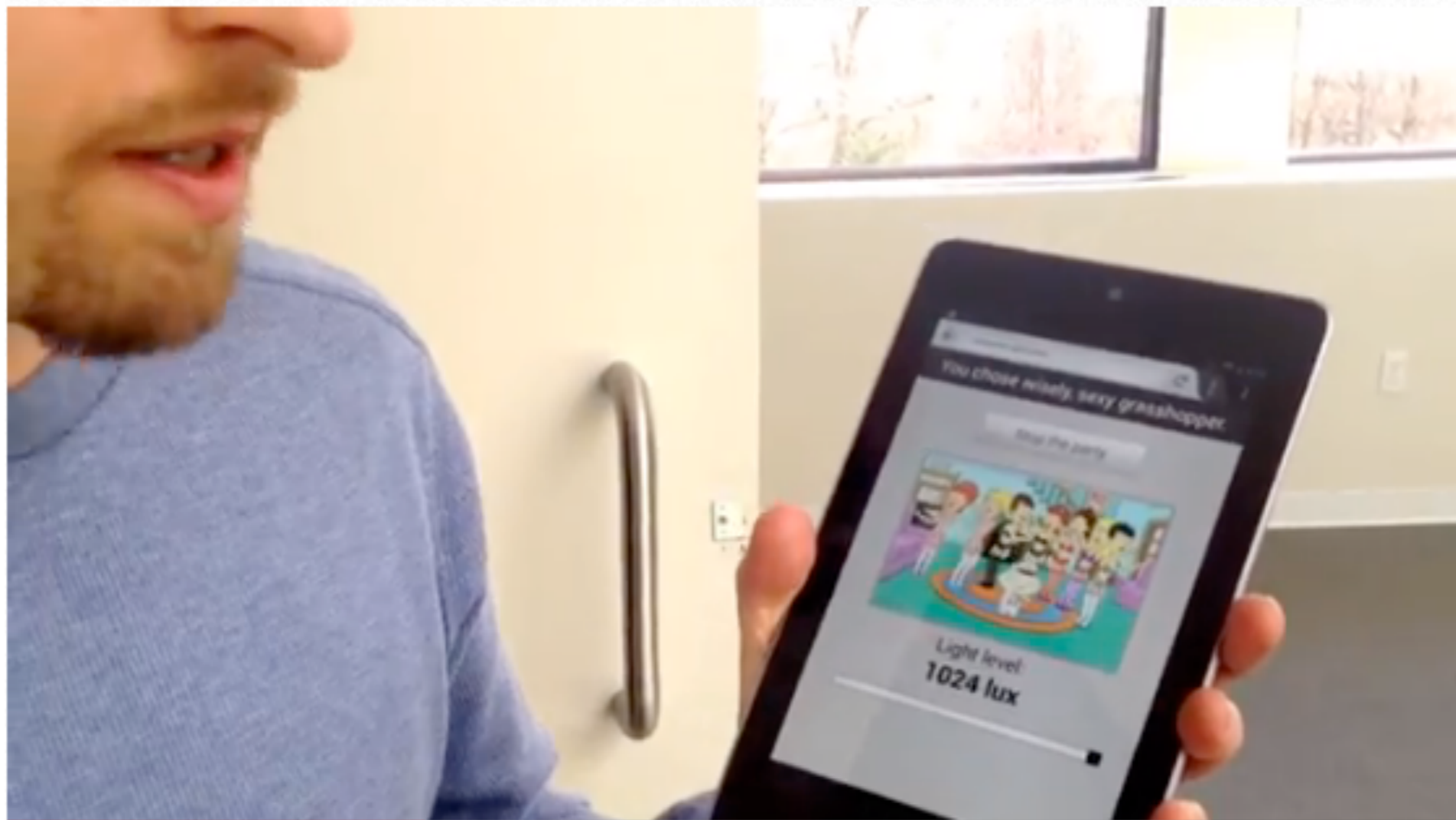
Battery will be fully charged in **Infinity** minutes.

Battery will be discharged in **Infinity** minutes.

All the code is available in the [Battery repository on GitHub](#).

光センサー

<http://www.freshtilledsoil.com/device-api-ambient-light-demo-on-nexus-7/>



Web RTC

www.webrtc.org/demo



WebRTC を構成する3API

- MediaStream
 - メディアストリームのハンドリング
 - Web カメラなど
- RTCPeerConnection：音声、動画の双方向通信
- RTCDataChannel：一般の双方向通信

Browser 1



START: Obtain & Display Local Video Feed

STEP 1: Create (Peer Connection) & Send a Call Offer (SDP) to Browser 2. Note: Peers must be present with local streaming video before sending an SDP offer.

STEP 3: Receive Answer (SDP) from Browser 2;
Call `startIce()` Method of Peer Connection &
Send Generated ICE Candidate to Browser 2

STEP 5: Receive & Process ICE
Candidate from Browser 2

COMPLETE: Receive & Display
Browser 2 (Remote) Video Feed

Browser 2



START: Obtain & Display Local Video Feed

STEP 2: Receive Call Offer (SDP) from Browser 1;
Generate & Send Call Answer (SDP) to Browser 1

STEP 4: Receive & Process ICE Candidate
From Browser 1 & Send Generated
ICE Candidate to Browser 1

COMPLETE: Receive & Display
Browser 1 (Remote) Video Feed

Web RTC を利用したオンライン対戦

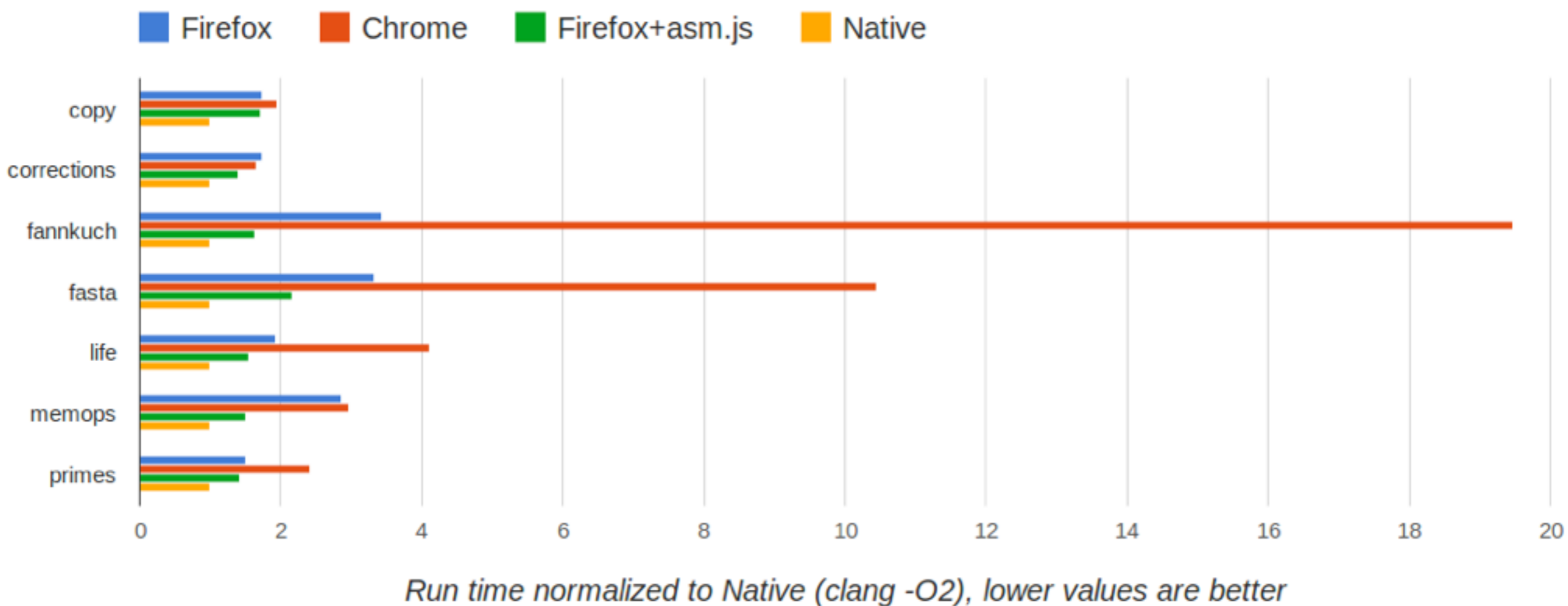
<https://hacks.mozilla.org/2013/03/webrtc-data-channels-for-great-multiplayer/>



スピード

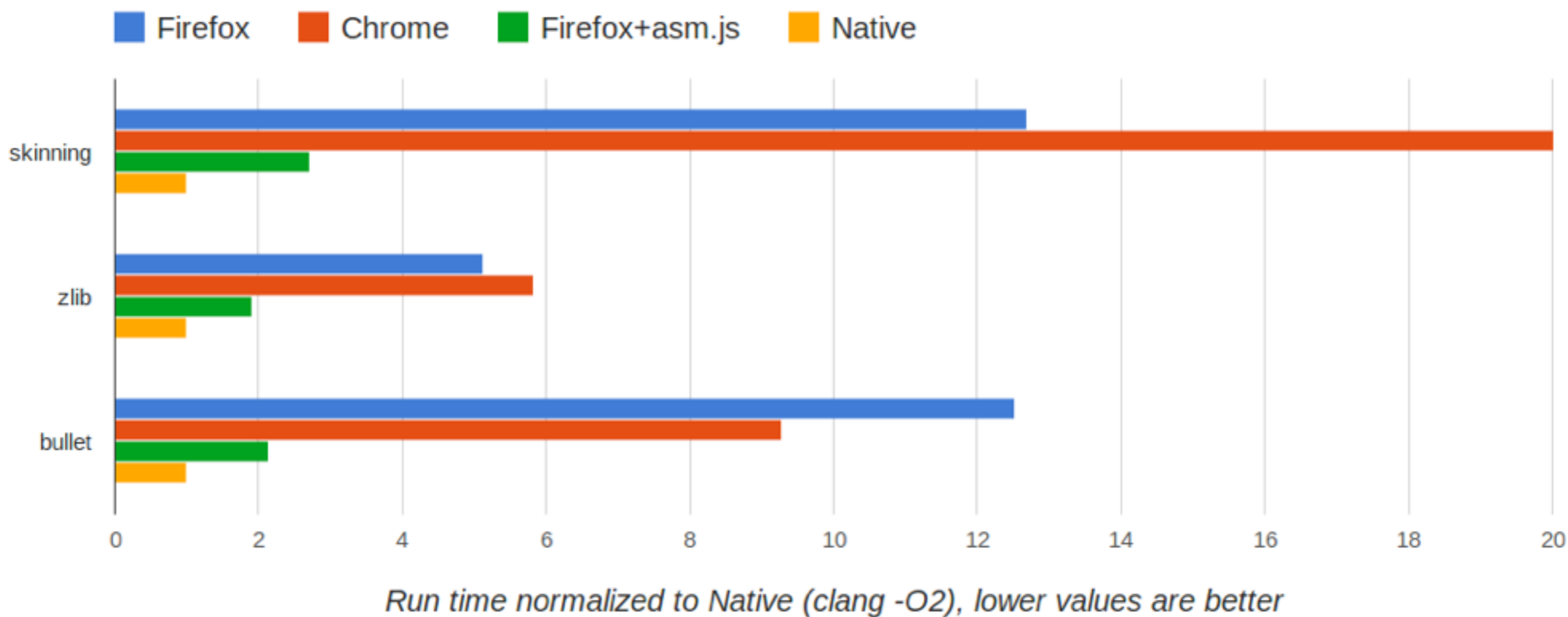
Micro-benchmarks

http://kripken.github.io/mloc_emscripten_talk/#/27



Realistic / large benchmarks

http://kripken.github.io/mloc_emscripten_talk/#/28



Epic Citadel HTML5

<http://www.unrealengine.com/html5/>



まとめ

Webこそがプラットフォーム

- アプリケーション作成に必要な機能を提供
 - 十分な表現力
 - Webがネイティブ
 - 実行スピードの向上
- インストールしなくても使えるアプリ

HTML5のデモサイト

Mozilla DemoStudio

<https://developer.mozilla.org/demo>



Chrome Experiments

<http://www.chromeexperiments.com/>

The screenshot shows the Chrome Experiments website interface. At the top, there is a navigation bar with links for Home, About, Submit, Get Google Chrome, Social, Mobile, and a Search icon. The main header area displays "Chrome Experiments" on the right and "Featured Experiments" on the left. Below the featured experiments, there are three cards: "Pearl Boy" by Goo Technologies (3 stars), "JAM with Chrome" by Google (3 stars), and "A Dark Room" by Michael Townsend (5 stars). Each card includes a thumbnail image and a star rating. At the bottom of the page, there are links for "All Experiments" and "Tags", and a pagination indicator "1-18 of 664".

the Expressive Web

<http://beta.theexpressiveweb.com/#!/welcome>

