

# Web Speech API

*André Natal*  
*Mobile Voice Conference*



# *August 2012*

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**SURE!**

## *But, what is Firefox OS?*

Firefox OS is the new mobile operating system developed by Mozilla, based on Linux and Firefox's powerful Gecko rendering engine.

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For Web developers, the most important part to understand is that the entire user interface is a web app capable of displaying and launching other Web apps.

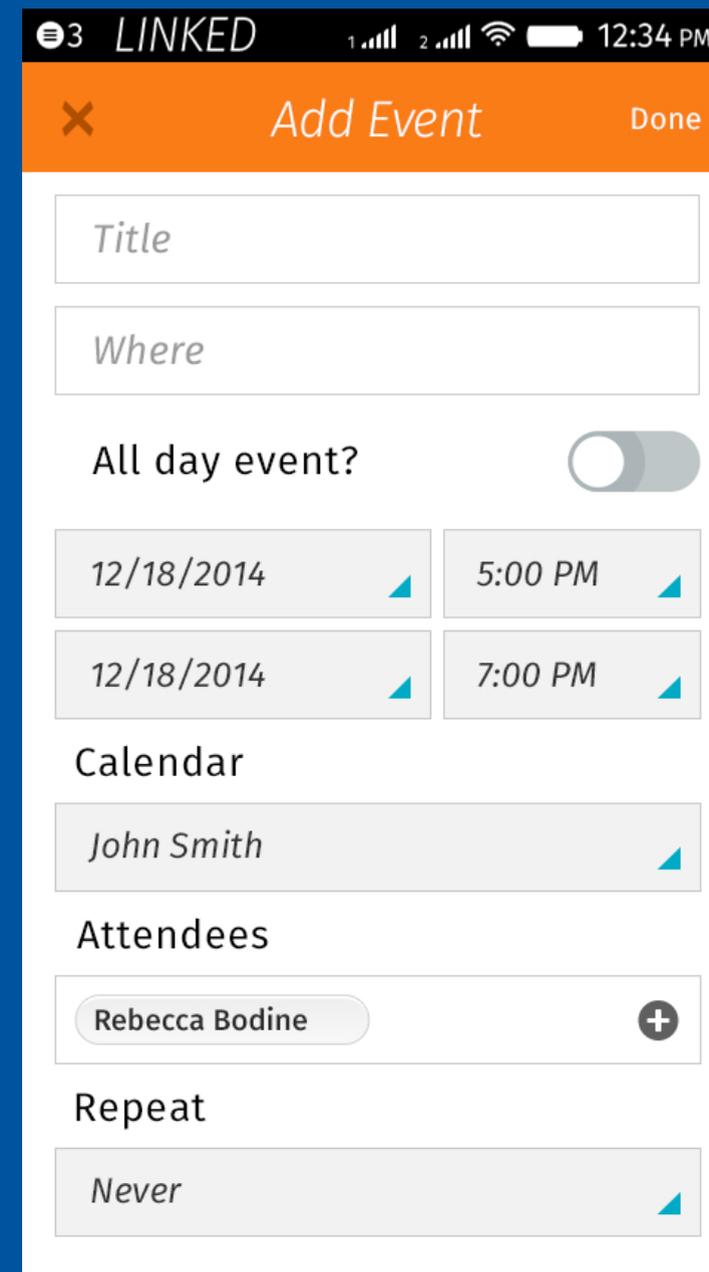
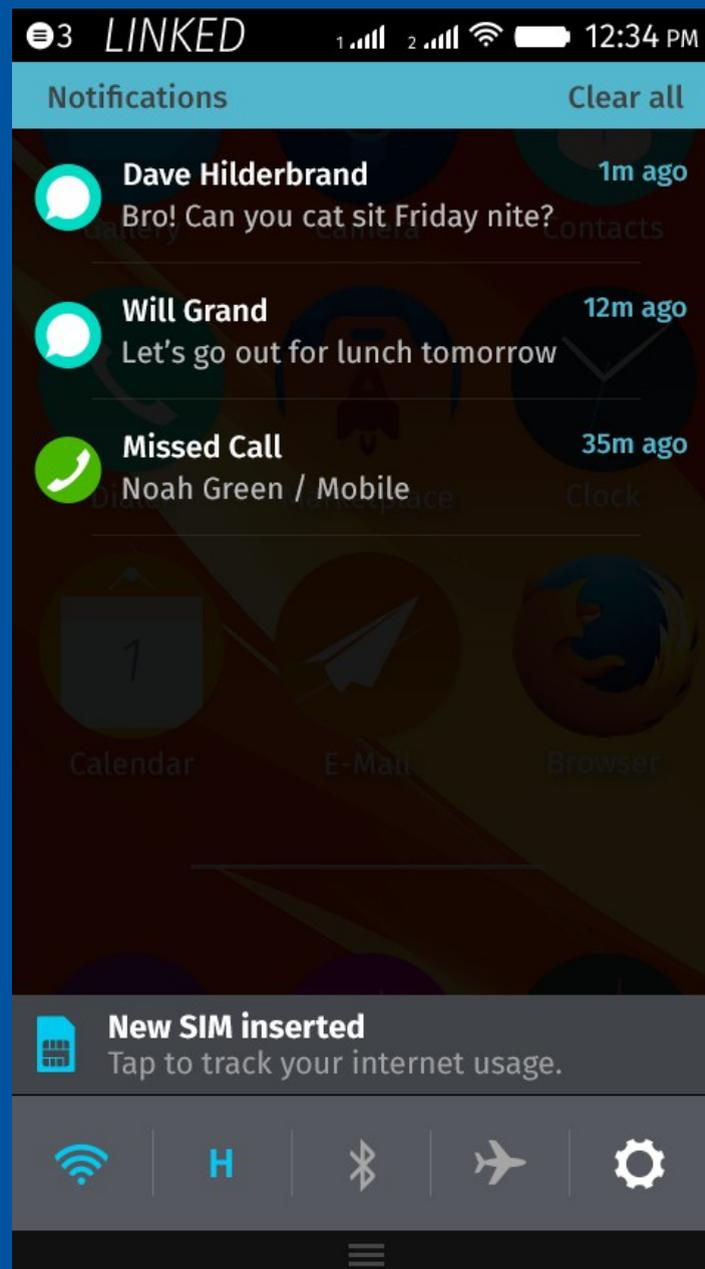
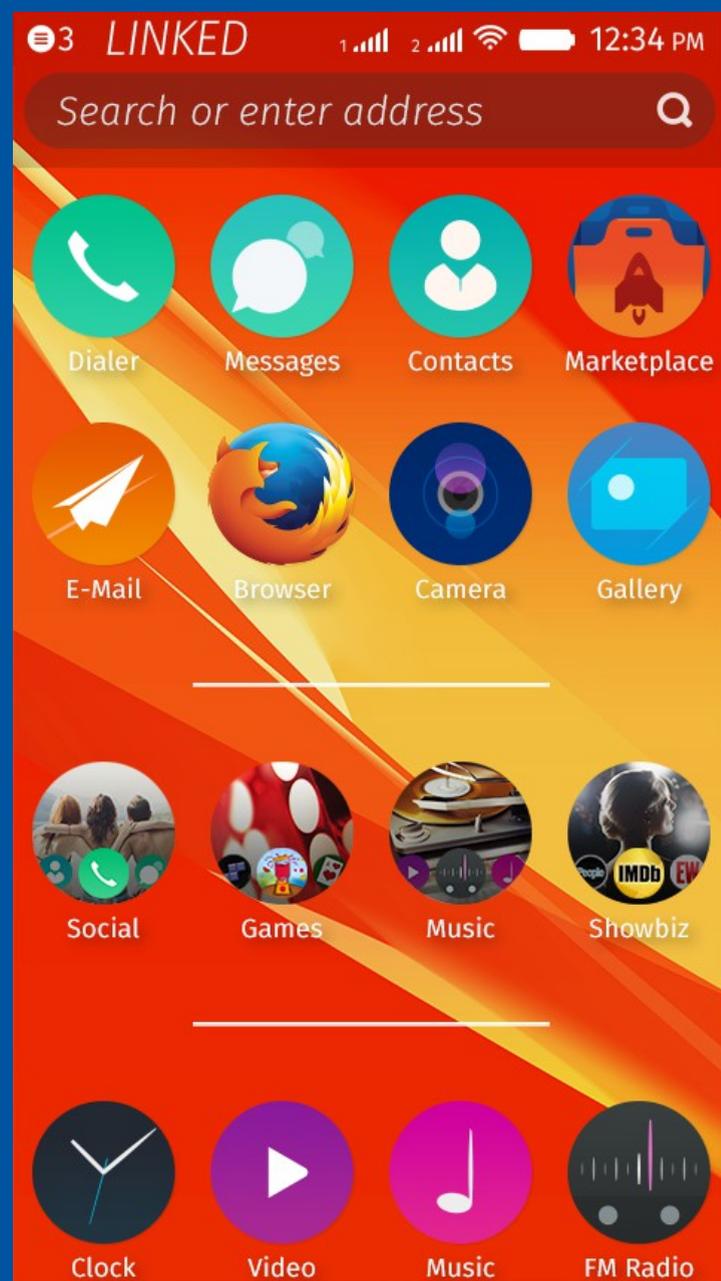
Any modifications you make to the user interface and any applications you create to run on Firefox OS are web apps created using HTML, CSS, and JavaScript, albeit with enhanced access to the mobile device's hardware and services.

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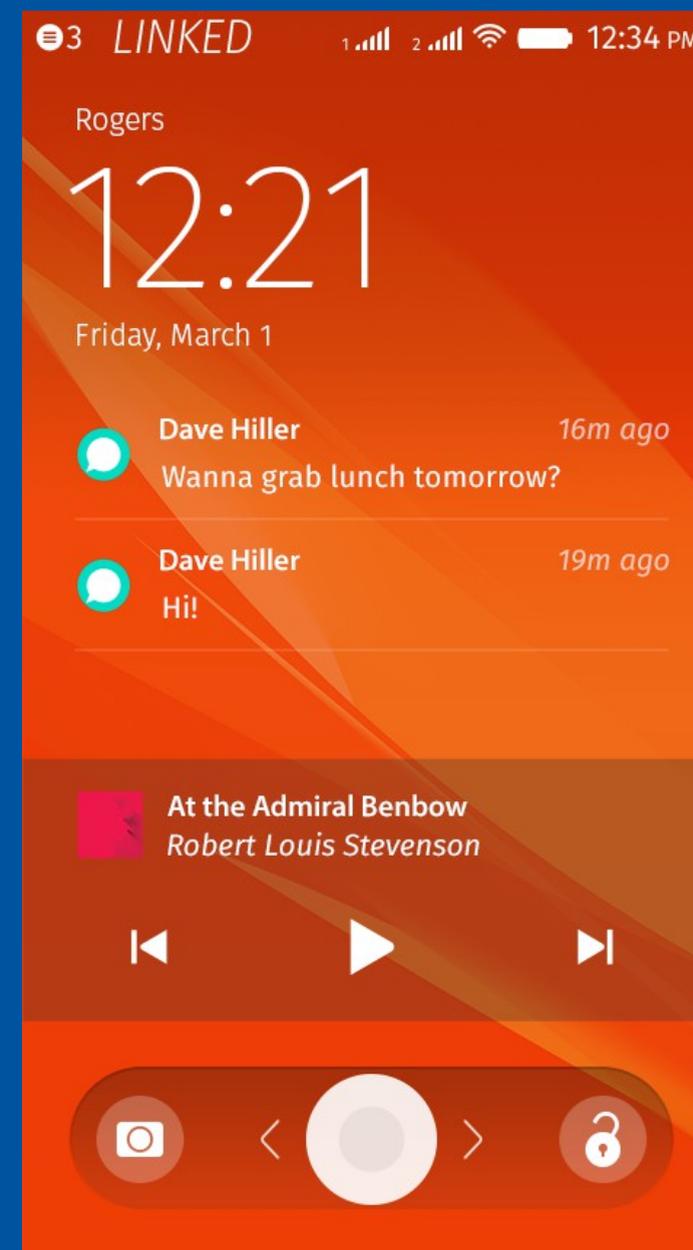
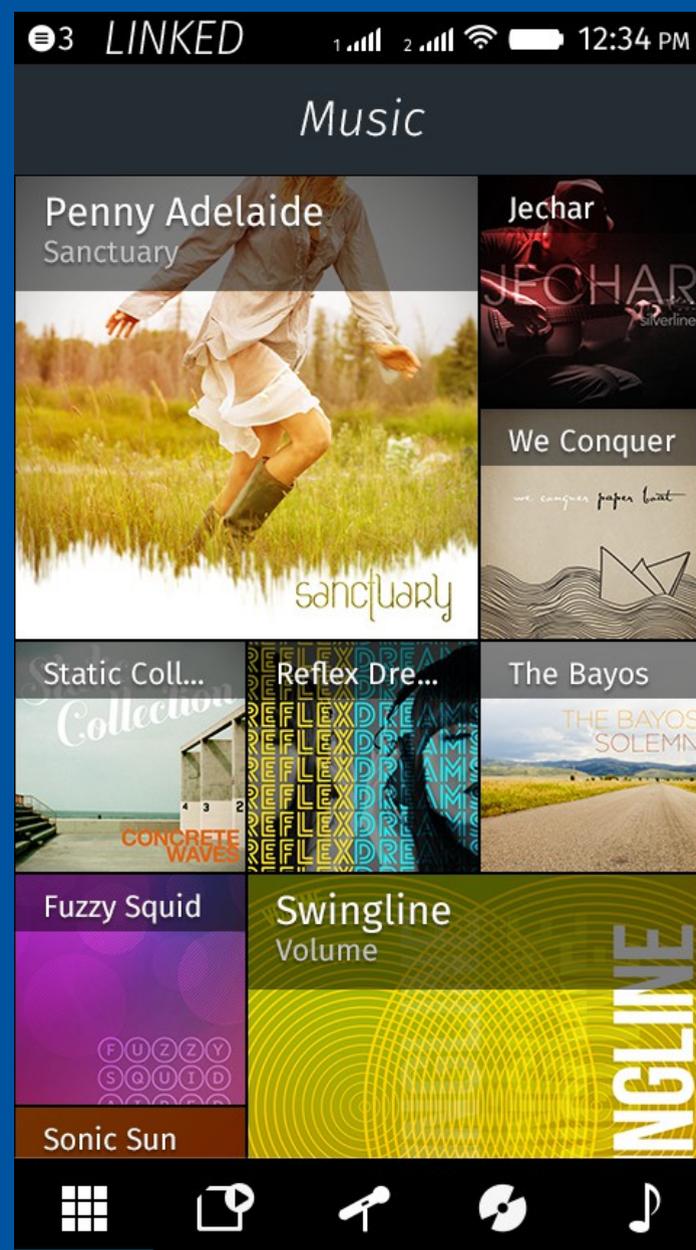
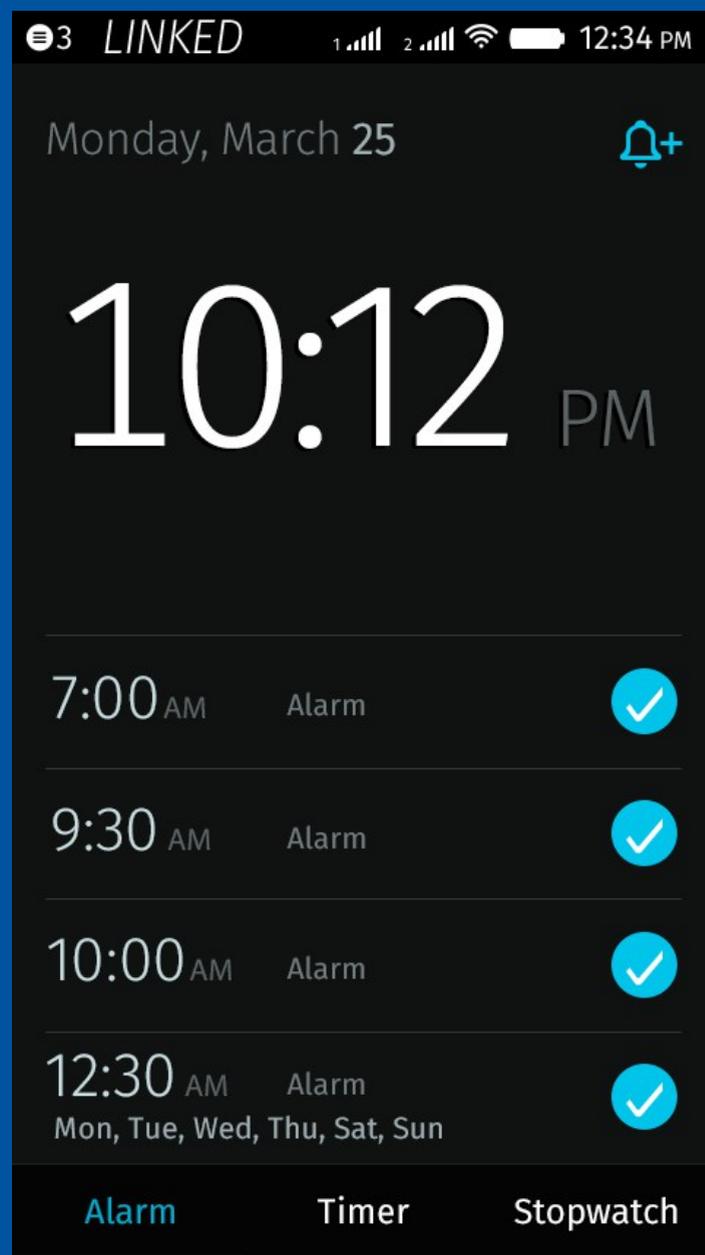
From a product perspective, Firefox OS is Mozilla's branding and support services applied on top of Boot to Gecko (B2G), which is the operating system's engineering codename.

Boot to Gecko is developed by a team of engineers inside Mozilla plus many external contributors from the wider Mozilla/open source community.

# But, what is Firefox OS?



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Where is **Firefox OS**?

# *SpeechRTC*

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Capturing voice encoded in Opus using HTML5 getUserMedia API and streaming via websockets or RTCDataChannel to a nodejs server powered with pocketsphinx.

# SpeechRTC

```
var speechrtc = new SpeechRTC("en-US");  
speechrtc.gram(["Apple", "Oranges", "Watermelon"]);  
speechrtc.listen();  
SpeechRTC.onRecognition = function(said){  
  console.log( " You said "+ said );}
```

<https://github.com/andrenatal/speechrtc>

*But Andre, data is expensive*

We need an offline solution.

# *Pocketsphinx porting to Javascript*

Ported pocketsphinx to javascript using emscripten and modified SpeechRTC to instead stream to an online server, call pocketsphinx javascript libraries.

<https://github.com/syl22-00/pocketsphinx.js>

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**We need Web Speech API!**

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In April 2015 Mozilla started to build it's first official speech group.

# *Web Speech API*



Firefox Desktop



Firefox OS



Firefox for Android

# *Why Pocketsphinx*

Reliable, accurate and lightweight

Code fully portable

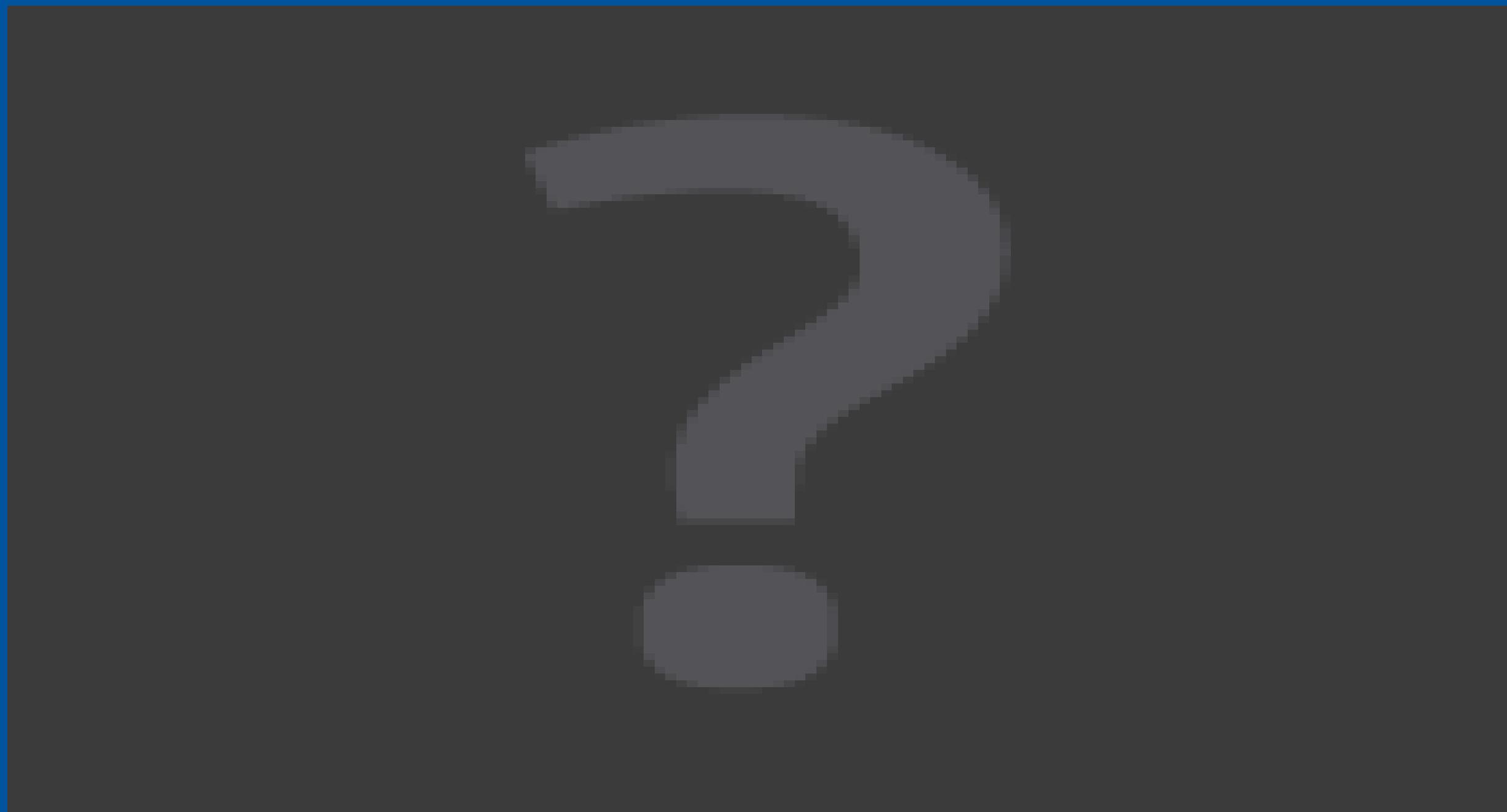
Small footprint

Active community

Every Mozilla improvement will be contributed back

*What's next?*

Meet Vaani



<https://www.youtube.com/watch?v=dKHwkwUUQgA>

*What's next?*

Meet Vaani

And her chinese cousin



<https://www.youtube.com/watch?v=vZWWWny-QNc>

*What's next?*

Vaani

Estimated Release Summer 2015

# *Many voices one Mozilla!*

Doing good is part of our  
code!

Thank you!

@andrenatalbr

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