



Bringing NFC to the browser with Web NFC API

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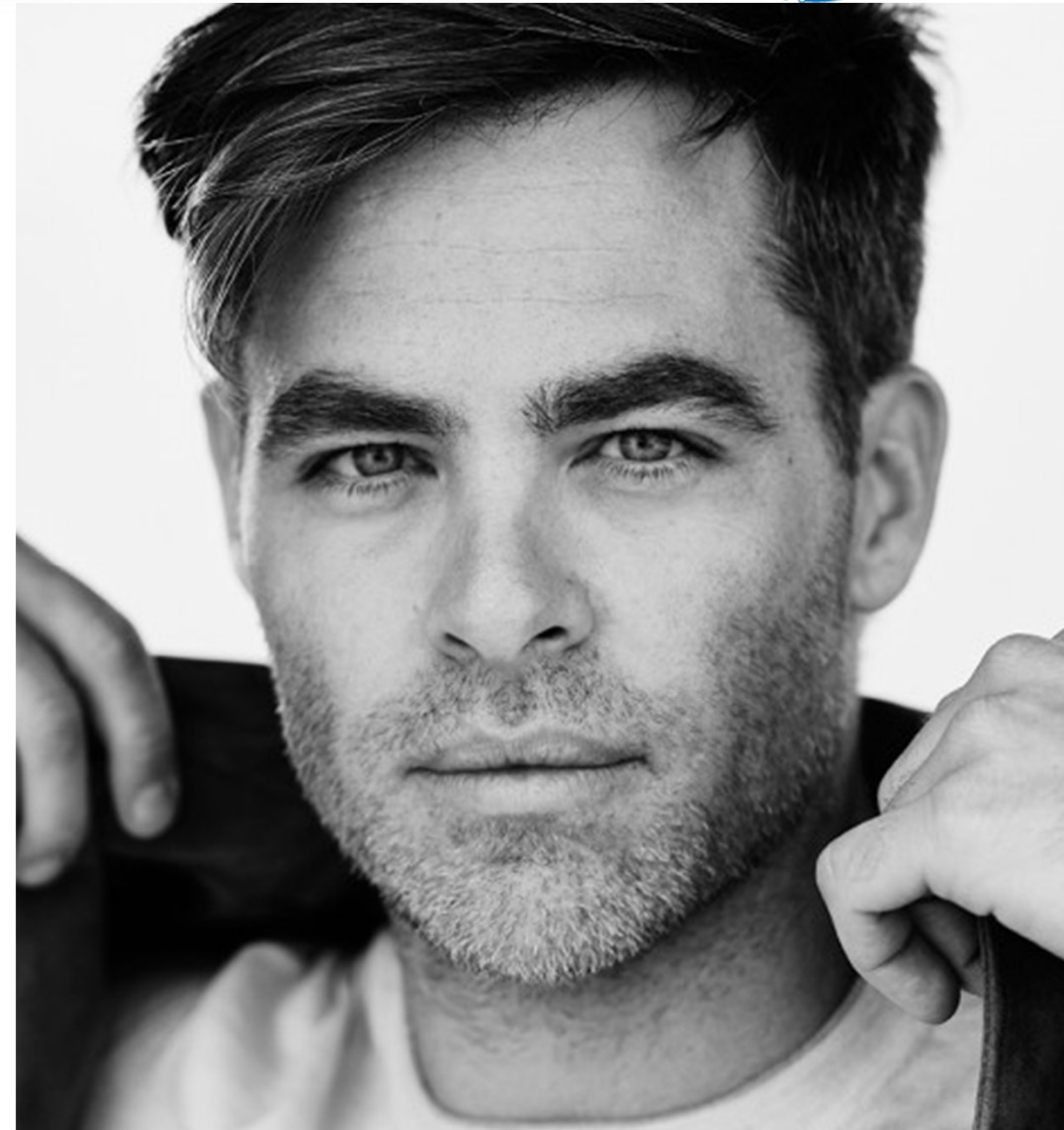
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Flashback



circa

2014



NFC and the web: It's happening

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Slides: <http://goo.gl/33GqHa>

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Twitter


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Google+


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Github

[justinribeiro](https://github.com/justinribeiro)

 Code

 Pull requests **0**

 Projects **0**

 Insights

Overview

Active

Stale

All branches

Default branch

`master` Updated 4 years ago by Louis Yung-Chieh...

Stale branches

`type4-conversation` Updated 3 years ago by justinribeiro



Wild West of the Web, NFC Edition

Firefox still had an OS. Chrome had packaged applications with Native Client.
NFC did work, but it could be better.



Then a funny thing happened.

Let the extensible web be all the api things.

Intent to Implement: Web NFC API

20 posts by 10 authors  



Alexander



Contact emails

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Spec

<http://w3c.github.io/web-nfc/>

Summary

The goal of the Web NFC API is to enable a set of Near Field Communication (NFC) functionality in the browser, which is useful for web p

Motivation

This feature gives developers the ability to access Near Field Communication (NFC) functionality of a device, such as reading and writing devices. Example use cases can be found at [1].

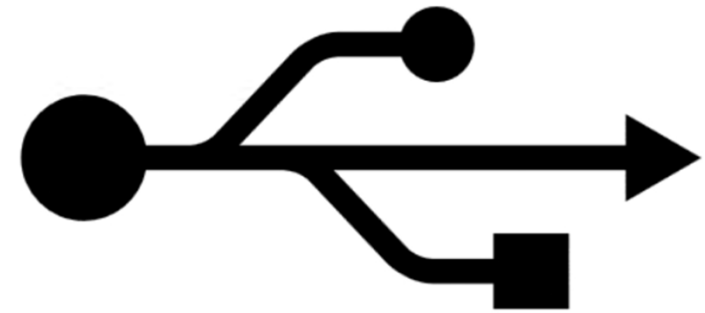
Compatibility Risk:

This is a new API and has not been implemented in other browsers, therefore, there is no compatibility risk.

The spec is being defined by Web NFC CG [2] and has undergone review by the W3C TAG, so few changes are expected during the imp
experimental runtime flag

PWA

Progressive Web Apps



WebVR

Generic Sensors
API

```
1 // listen for taps
2▼ navigator.nfc.watch( _ => {
3▼   for (let rec of _.data) {
4     console.log(
5       `${rec.data.id}: ${rec.data.title}`
6     )
7   }
8 },
9▼ {
10   url: document.baseURI,
11   recordType: 'json'
12 });
13
14
15 // Push a text record
16▼ navigator.nfc.push([
17   url: message.url,
18▼   data: [{
19     recordType: "text",
20     data: 'Hi Connection Summit!'
21   }]
22 }]);
```




Users just want things to work.

App downloads and deployments are hard. The web offers the low friction with growing roots to fill use cases that were often reserved for the native app world.

☰ My Grocery Plan

14:21

Write to tag
Cocoa

Shopping list

- Banana
- Milk

Wrote «Cocoa» to NFC tag!

q¹ w² e³ r⁴ t⁵ y⁶ u⁷ i⁸ o⁹ p⁰ a
a s d f g h j k l æ ø
z x c v b n m

DA · PT · EN







Use Case: Inventory Tracking

Because no one wants to spend big budget on bar code scanners and RFID.



moto g5 PLUS

moto g5 PLUS

POWER
MOTO
CAMERA
GALLERY
MUSIC
APPS
HOME

12 MP Rapid Focus Camera
3.5T 1080p
TricklePower™ Charging
20 GB of FREE storage
Expandable Memory
Fastest Charging
TricklePower™ Charging

12 MP Rapid Focus Camera
3.5T 1080p
TricklePower™ Charging
20 GB of FREE storage
Expandable Memory
Fastest Charging
TricklePower™ Charging

CE FC

CE FC

ORCA



4:47

hungry-batch-test037

CREATED

Materials Process Outputs

ADD A ITEM

Weight 75.21 lbs

Item Type BCS552-FragmentBeam

Tag / Barcode ID 8325495

Notes

X



Sheet of barcode labels with IDs: 8325492, 8325493, 8325494, 8325495, 8325496, 8325497, 8325498, 8325499

The logo for the Connections Summit is a circular emblem. It features a central white circle containing the text "CONNECTIONS" in a bold, dark blue, sans-serif font, with "SUMMIT" in a smaller, dark blue, sans-serif font directly below it. Surrounding this central text are several concentric rings of small, colorful dots (in shades of blue, green, orange, and red) connected by thin, curved lines, creating a network-like or circuit-like appearance. The entire logo is set against a white circular background.

CONNECTIONS
SUMMIT



We still have a ways to go.

While the PWA story is coming to the big browsers, NFC and most of the connectivity we're discussed is still only available in Chrome.



Not all supported (yet)

Type 1/2 are in Chrome behind flags now, but type 3/4 in specification not yet implemented.

chrome://flags

1

Search flags

Reset all to default



Experiments

64.0.3282.137

WARNING: EXPERIMENTAL FEATURES AHEAD! By enabling these features, you could lose browser data or compromise your security or privacy. Enabled features apply to all users of this browser.

Available

Unavailable

● Experimental Web Platform features

Enables experimental Web Platform features that are in develo...
[#enable-experimental-web-platform-features](#)

Enabled

● WebNFC

Enable WebNFC support. – Android
[#enable-webnfc](#)

Disabled



Thank you!

Questions? Comments? Pitchforks? Tomatoes?