



Native Apps in HTML5?

Yes. Yes you can.

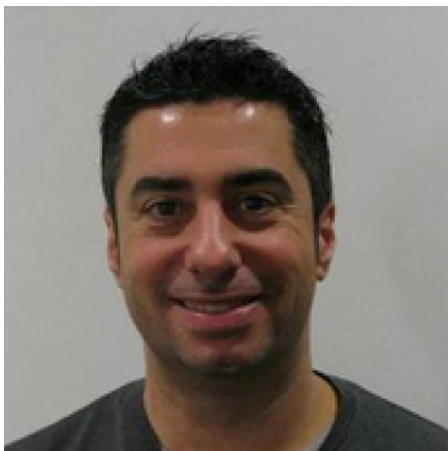


GAME DEVELOPERS CONFERENCE™

SAN FRANCISCO, CA
MARCH 25-29, 2013
EXPO DATES: MARCH 27-29

2013

About Me



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Developer Advocate for Google Chrome



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Agenda

Web Apps vs. Native Apps?

Overview of Chrome Packaged Apps

Demos

Anatomy of Packaged Apps

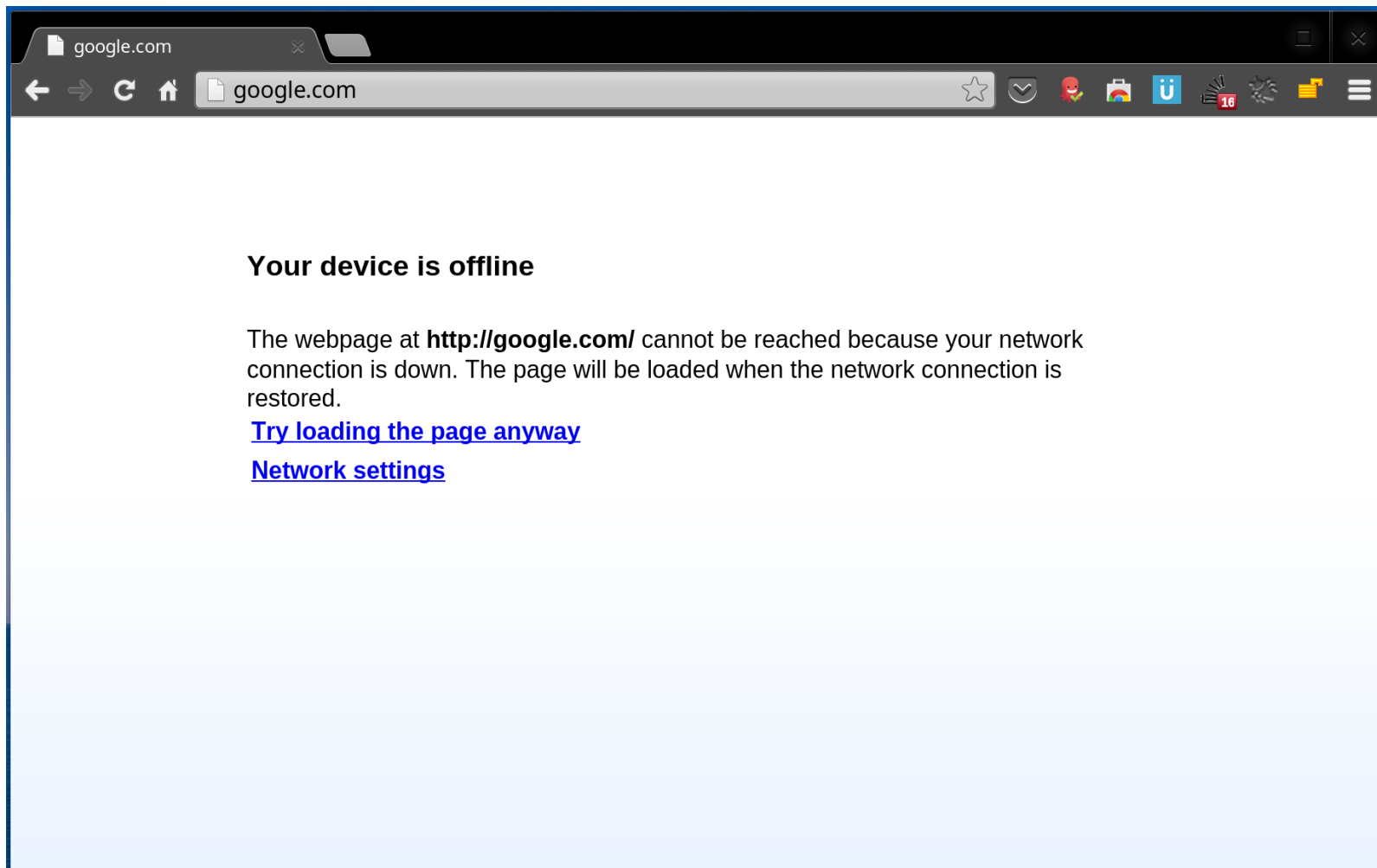
Distribution and Monetization

Becoming a Packaged App / CWS Developer

Web Apps are Great!



... Until They're Not.



Web Games are Great!



... Until They're Not.



As Great as the Web is, There are Some Limitations

- Hard to do offline well - AppCache support is inconsistent
 - And even then, AppCache has its set of problems
- Advanced features aren't universally available
 - Accessing the file system
 - Using WebGL and WebRTC
 - Advanced JavaScript features like WebSockets and WebWorkers
- Very little support for accessing hardware
 - USB, Bluetooth, Camera, Microphone, etc.
- Running across multiple browsers and platforms is challenging



CHROME PACKAGED APPS

The Goal of Chrome Packaged Apps

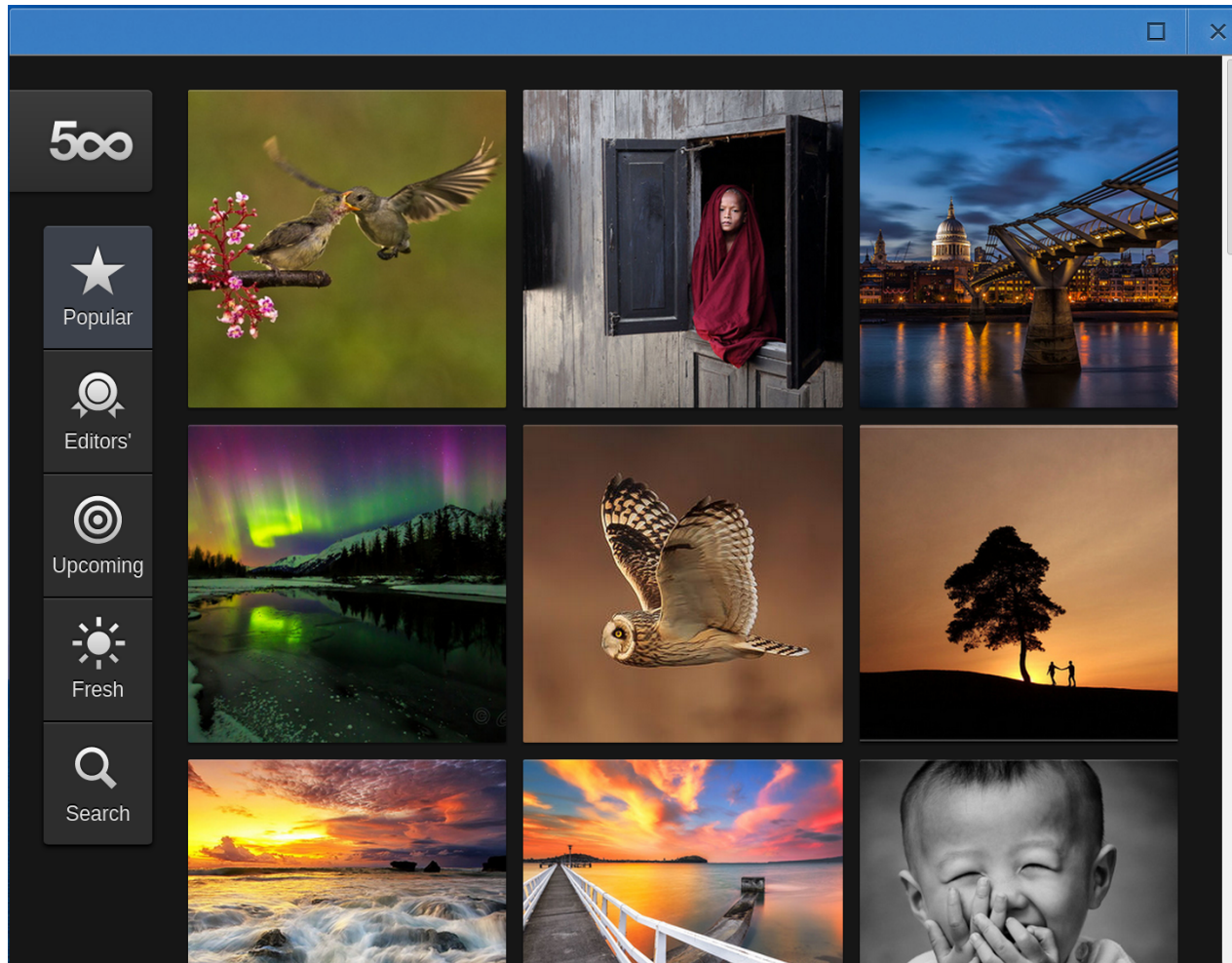
Give users the **convenience** and **experience** of native applications...

... while leveraging the **deployment** and **security** of the web

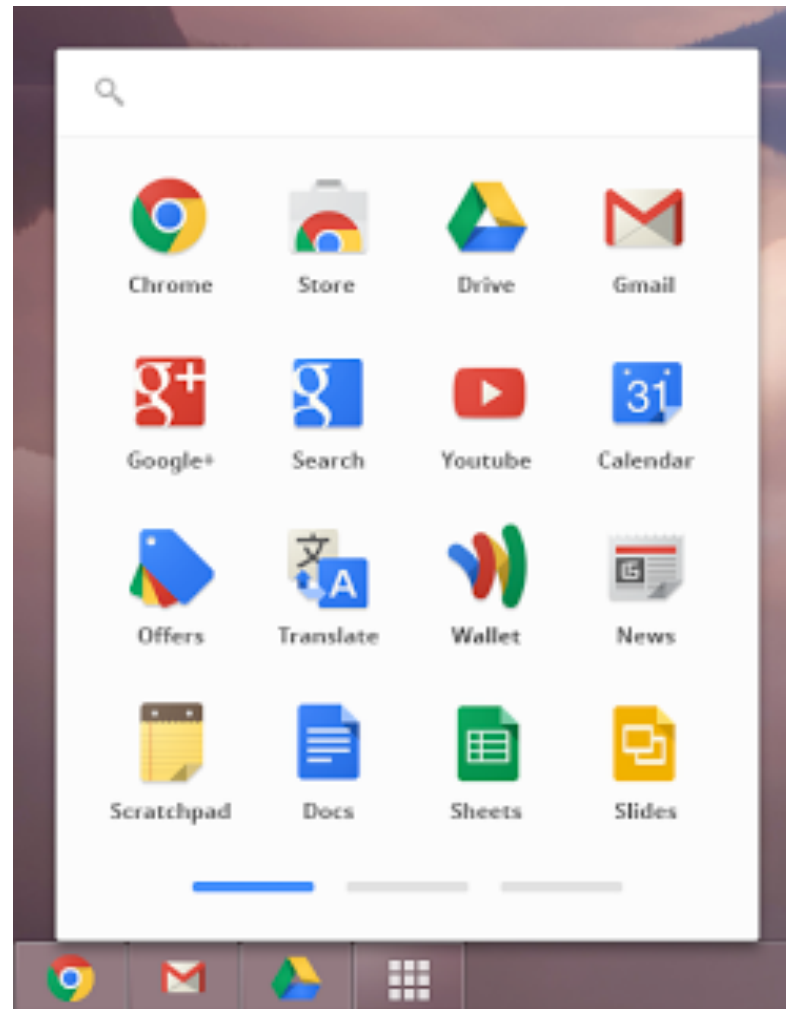
Basics of Chrome Packaged Apps

- 1) Run independently and outside of the browser UX
- 2) Provide expanded APIs to access hardware and much more
- 3) Run offline, by default
- 4) Are distributed via the Chrome Web Store
- 5) Are monetized the way you want them to be

Rich, Immersive UI - Outside the Browser



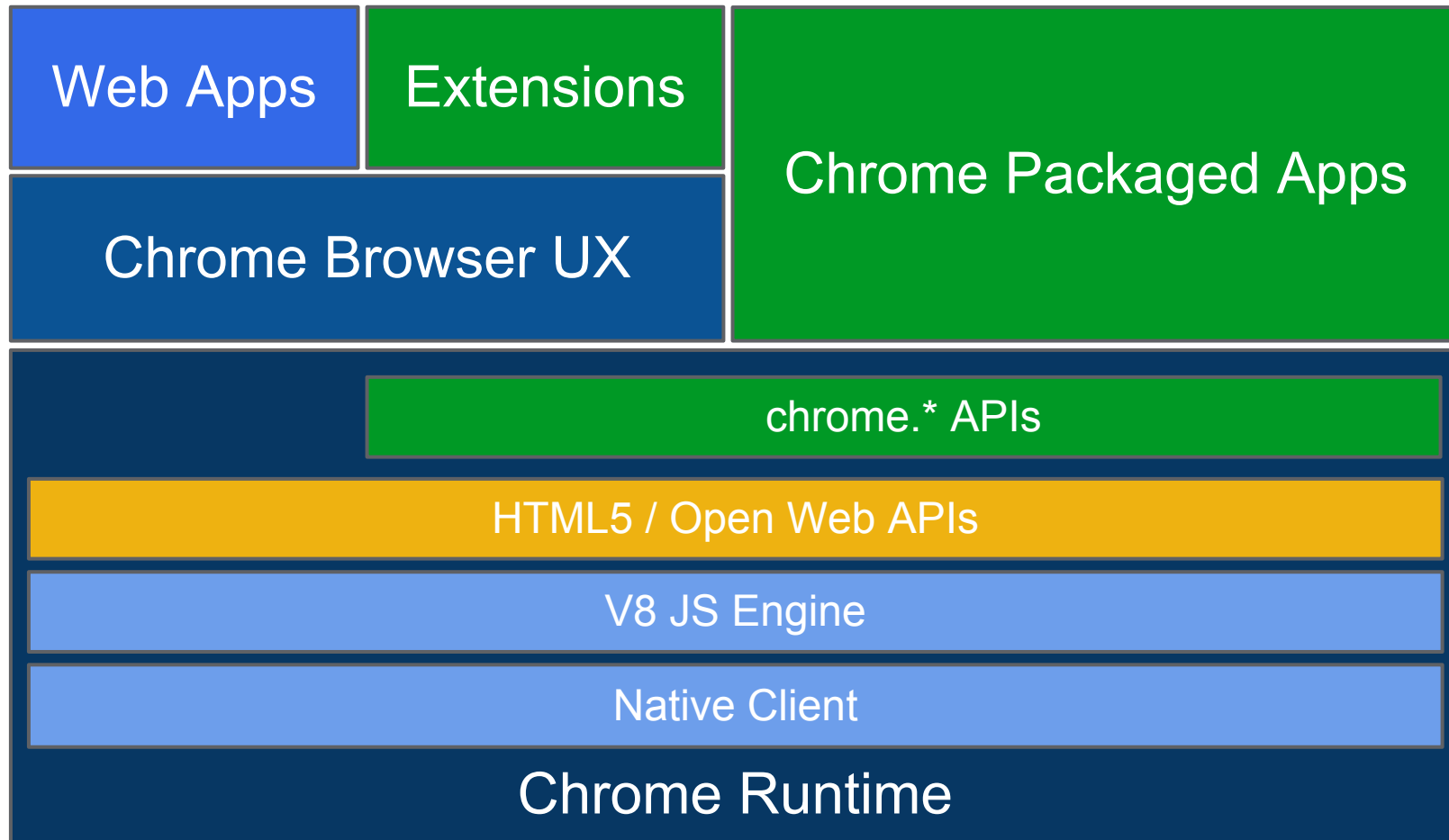
Uniform, Common Launcher Experience



PACKAGED APP DEMO

ANATOMY OF CHROME PACKAGED APPS

The Packaged Apps Conceptual Programming Model



Components of a Packaged App

manifest.json

*Information about the app -
permissions, version, etc*

background.js

*App startup - set up events,
create windows, etc*

Other HTML, JS, CSS

*Your application logic and
user interface files*

Application.crx

Typical Manifest File

manifest.json:

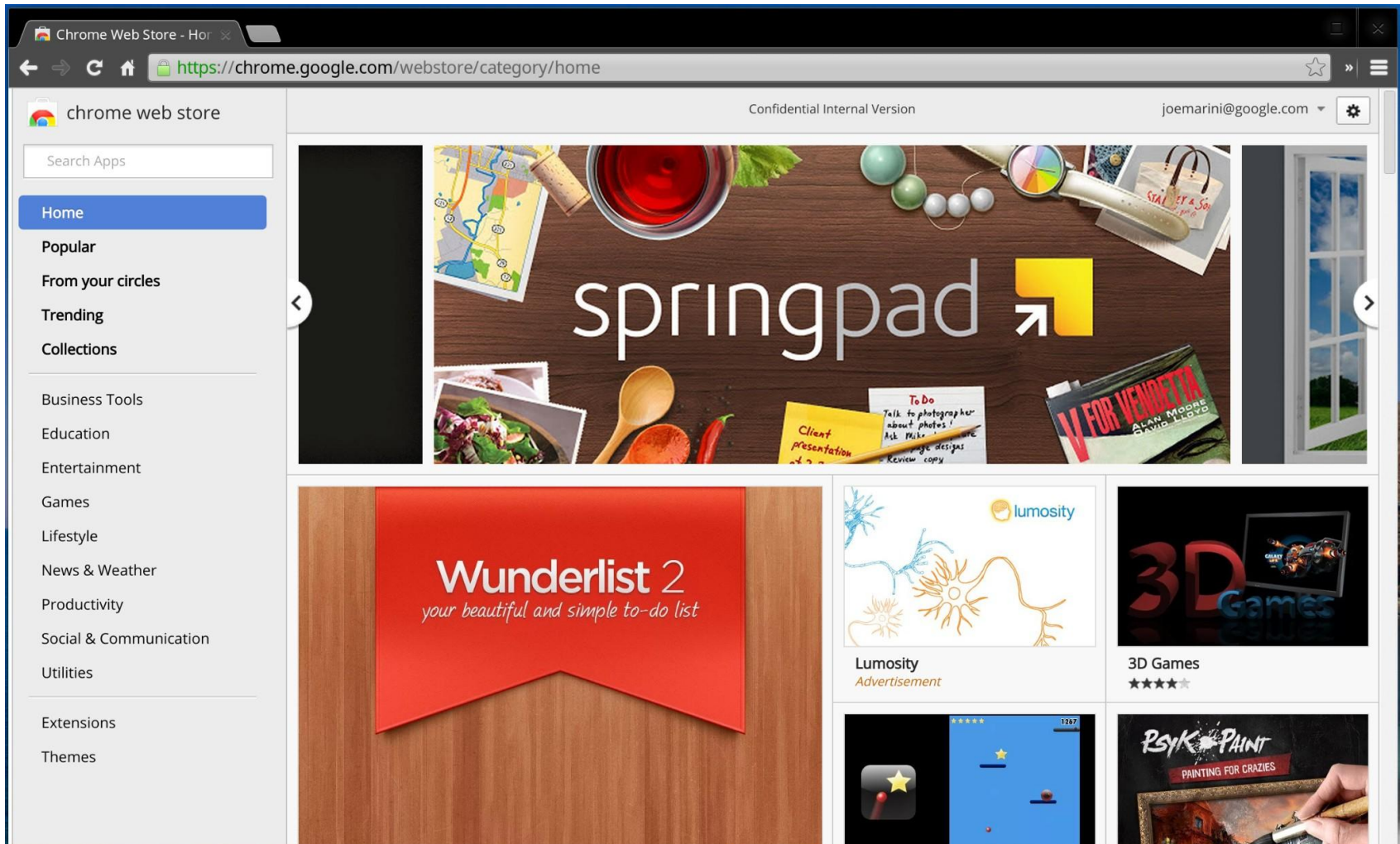
```
{  
  "name": "Hello World!",  
  "description": "My first Chrome platform app.",  
  "manifest_version": 2,  
  "version" : "1.2.3.4",  
  "app" : {  
    "background": {  
      "scripts": ["background.js"]  
    }  
  },  
  "permissions": ["experimental", "windows"],  
  "icons": { "16": "icon_16.png", "128": "icon_128.png" }  
}
```

A Sampling of the Chrome APIs

- alarms
- app.window
- app.runtime
- bluetooth
- commands
- contextMenus
- events
- fileSystem
- identity
- notifications
- mediaGalleries
- permissions
- pushMessaging
- runtime
- serial
- socket
- storage
- systemInfo
- tts
- usb

DISTRIBUTION AND MONETIZATION

The Chrome Web Store



The Chrome Web Store - The Three Ds

Discovery	Distribution	Dinero
<p><i>Help users discover and consume great content for Chrome</i></p> <ul style="list-style-type: none"> • Apps • Websites • Extensions • Themes 	<p><i>Give developers an easy way to get their content into the hands of consumers</i></p> <ul style="list-style-type: none"> • Updates • Partial Rollouts • Reviews • Analytics • User Feedback 	<p><i>Provide monetization options for developers</i></p> <ul style="list-style-type: none"> • One-time pay • Ad-supported • In-App Payment • Third-party pay

Chrome Web Store: Discovery

- Reach:**
- 10s of millions of unique visitors per month
 - In 40+ countries around the world
 - Major traffic sources: US, EU, BR, RU, IN

- Exposure:**
- CWS search integrated with Google Search
 - Various opportunities for promotion in store
 - Developers can supply and update images

- Community:**
- Integrated with GPlus "+1"
 - Direct-to-developer feedback option

Chrome Web Store: Distribution

Management: - Publish to "trusted testers"
- Update graphic assets at your leisure

Deployment: - CWS handles scaled rollout of updates
- Ability to deploy to % of users
- Detection of user platform capabilities

Measurement: - Integration with Google Analytics
- Detailed Impression/Install Reports

Chrome Web Store: Dinero

Multiple Payment Models:

- One-time pay-per-download
- Ad supported (AdMob)
- Subscription payments
- Integration with Google Wallet

Support for Third-Party Payments

- Choose your own payment provider

How to Get Started

1. Get the latest Chrome Canary
2. Visit developer.chrome.com/apps
3. Download the samples from github.com/GoogleChrome
4. Follow the code lab: github.com/GoogleChrome/chrome-app-codelab
5. Sign up for a Chrome Web Store dev account
6. Build an app
7. Publish

Where to Learn More

- <http://developer.chrome.com/apps>
- <http://github.com/GoogleChrome/chrome-app-samples>
- StackOverflow: Follow the google-chrome-app tag
- <http://blog.chromium.org>
- <http://github.com/GoogleChrome/chrome-code-lab>
- Check out Chrome Apps on Google Developers Live:
 - <https://developers.google.com/live/chrome/>



thank you.

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