

# Developing for Mobile Web



mobile  
About 1,450,000,000 results (0.05 seconds)

WTF?

- Everything
- Images**
- Videos
- News
- Shopping
- Blogs
- More

- Any size**
  - Large
  - Medium
  - Icon
  - Larger than...
  - Exactly...
- Any type**
  - Face
  - Photo
  - Clip art
  - Line drawing
- Any color**
  - Full color
  - Black and white
- Standard view
- Show sizes







Also has  
Blackberry

Not a  
phone

# Phones go wild

**Portable?  
Handheld?  
A smart-phone?  
Any old phone?**



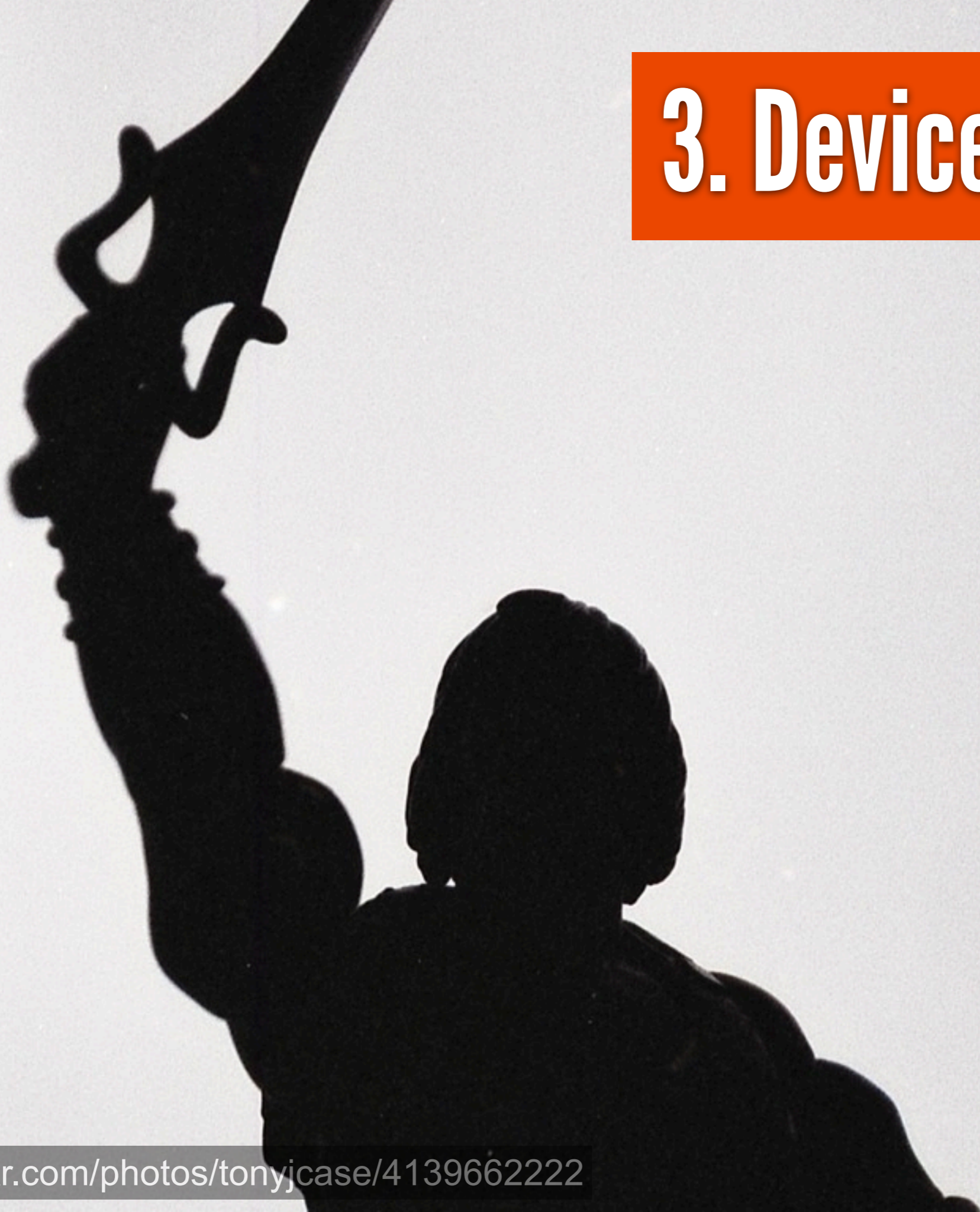
# 1. Physical properties



## 2. Network usage



# 3. Device Power





# Gmail

# 3.5 versions of Gmail:

Desktop - richly interactive

Desktop - 'simple' HTML

(requires opt in)

Mobile

& old mobile

(still served to Palm Pre, etc)



**Mobile devices being delivered different markup**

**CSS used for different viewports**

**JavaScript adding functionality if wide enough\***

\* yes, iPads, tablets, etc...

**Browser smelling bad?**



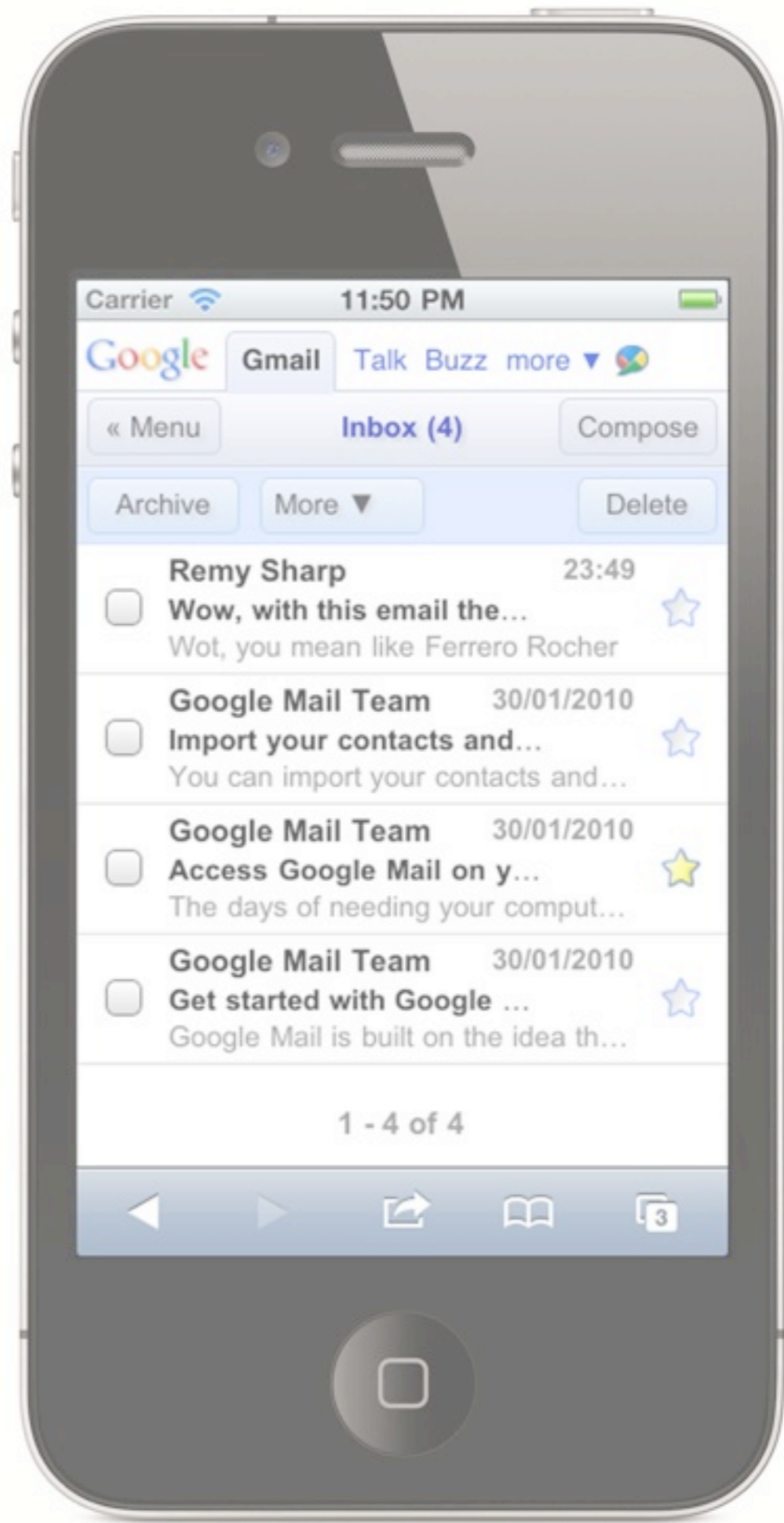
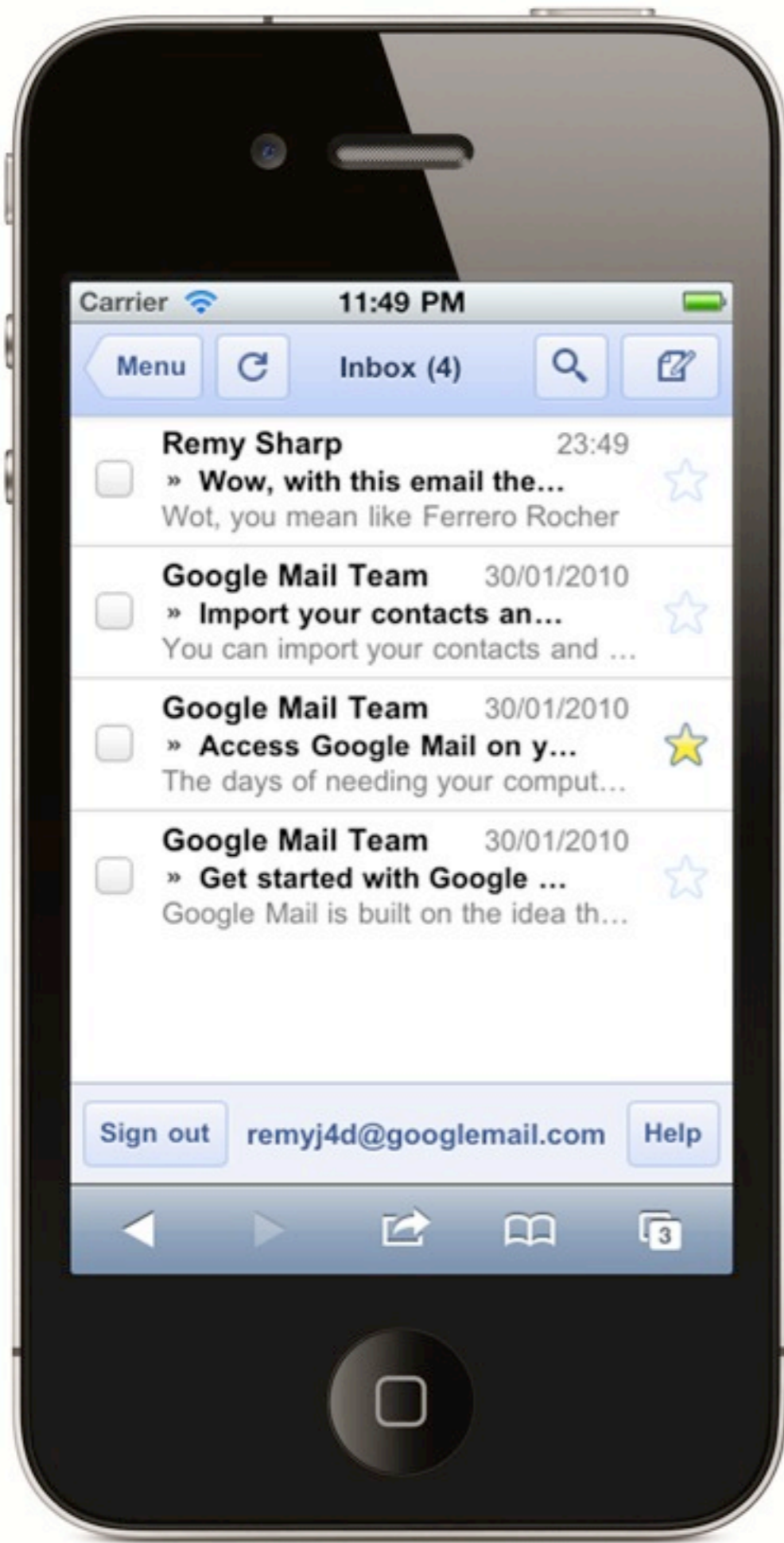
Send feedback

View Gmail in: **Mobile** | Older version | Desktop

©2011 Google



**Bingo people.**



Carrier



11:49 PM



Menu



Inbox (4)



**Remy Sharp**

23:49



» **Wow, with this email the...**

Wot, you mean like Ferrero Rocher



**Google Mail Team**

30/01/2010



» **Import your contacts an...**

You can import your contacts and ...



**Google Mail Team**

30/01/2010



» **Access Google Mail on y...**

The days of needing your comput...



**Google Mail Team**

30/01/2010



» **Get started with Google ...**

Google Mail is built on the idea th...





Search Resources

All Documents Stylesheets Images Scripts XHR Fonts Other

RESOURCES

- wVXMigJgbTwUQAAACV0RVh0ZGF0ZTpjcmVhdGUAMjAxM...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAIwAAABBCA...
- e3+pQg1dTxx5RAAAAAEIFTkSuQmCC  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAD0AAAAACMAAAACPI7...
- gIJPh11Qee+WQAAAABJRU5ErkJggg==  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABUAAAAVCAYAAACpF6...
- H9pxoxN4zAAAAAEIFTkSuQmCC  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABAAAAAQCAAAAAf8/...
- G6L9hIN6ymuCMIZRsZEHXEOelicZW4TIQR54lyFvcPCC8IYa4KU...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABMAAAAhCAYAAAA74p...
- gND5vOmu1Wq0R3L5PaaNkGdfwZ4phbzewO1IM3+Np7fH7G...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABUAAAAVCAYAAACpF6...
- hCkGcJq9OYafwqXzhHh87W9udPe99P98GuBPAw6gS9RdjIU4D...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAA0AAAAICAYAAACZFG...
- IDkO00hpkKA8Qq5LtZXSXlHsGAgABBgCcNbkqJqFzVAAAAABJR...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABQAAAAUCAYAAACNIR...
- Rvc9FxcrgW5COdSGptAp9Am6+CvAALQoi4RUGi0VAAAAAEIFT...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAAkAAAAhCAYAAAAALbo...
- vEfAUDsy1A5rPoGfwELEGALVfsZUTQco0AAAAASUVORK5CYII=  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABQAAAAUCAYAAACNIR...
- Z+ATEGSICzRjKG1dw9BS7IM1XSKITdRIQQcvXn1gqO5YxaCqIA...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABQAAAAUCAYAAACNIR...
- LrGAhnpwL67RUm4vsleLgzIMZ1FMrj7cY618rQhnBZtbYfMNrdj...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAA8AAAAOCAYAAADwik...
- wAZD6JBfJA4SJ7UJXrWIKn8OZHL35u2Xr03bKVe98sB9EgPkgcj...  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAAkAAAAhCAYAAAAALbo...
- vYowqwb0oZwAAAAASUVORK5CYII=  
image/png;base64,iVBORw0KGgoAAAANSUHEUgAAABIAAAATCAAYAAACdkI3...

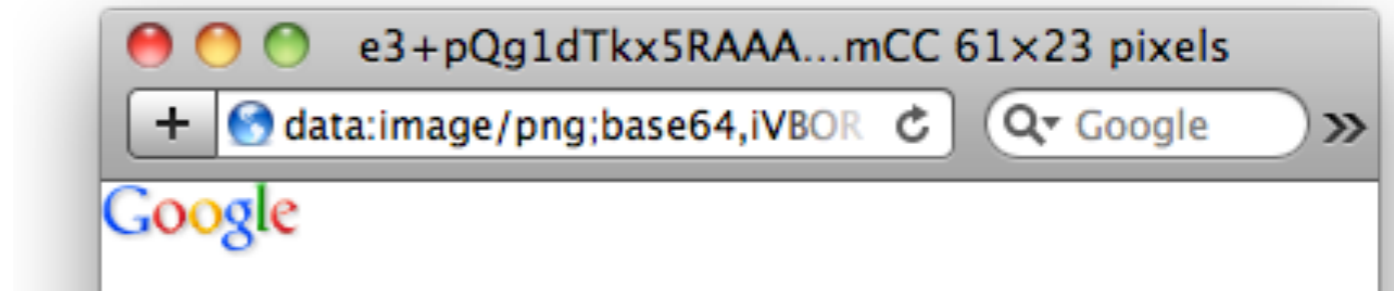
Headers Content

```
Request URL: data:image/png;base64,iVBORw0KGgoAAAANSUHEUgAAAIwAAABBCA
YAAAADtkxUAAAABmJLR0QA/wD/AP+gvaeTAAACXBIWXMAAABIAAAASABGyWs+AAAACX
ZwQWcAAACMAAAQCVwhfuAAAXFELEQVR42u2dCVgUx7bHR40YEQNJbLZNYL40Ly7RcK
NxjUuMEkFxRQ1JRDZRFBSjgiYuyCIGCKgRBHciKnHXuESvMTfReFUUEBVRQEVZBMRBdk
E895xiemx6enp6hmHxPer7/l8v1VVT3fWbU6eqq7sViloIvr6+IEe1mIcpqh dq0Mpapo
ar0pjW97k3o0tYN4EKoCuoCgm1kMcLzZo1G3Xy5MndxcXFeSAz0LGUhtJiHq2Mde6PKB
v1PvcGch0bhjBSBTU0j5deeunTmJiYQ2BguHDhwhHMo78+5ztjzxQg0W2fBN9sHg/jw4
YyDQvsDea+H0L/Re2hn+db1cpNIIImde8rmSLhvPV5DJS+/ql6S9L20p0+fFpWcP0ocmD
27dkHXrl2riVdA0YLKAUaQnuVhamo6try8vNhQYCoqKkpNTEzG6gvM48ePJfWx6wvq33
juuedYebkLPy8+IGKqenYUApS0k7wG/JBw0ReCgy+BlXshzFuQAJHbb0N0drn061gvwB
Aoo0aNYqJ1ThRP0HDkGwoMFwR5W0uqPL4WL14MY8aMgezsbPU+lu+jFzChJ1cwC00Whf
K4kHwebIMnMIuzbu9aBozwn01LFTTVgJGChbS9SVNd10BBUPhGnWH7U8pCyf+D0bA0rj
d8ZLMSRn6dKGpntNVFnQFDokSLvc6WQidLX2AKt0bD2vmfQtzfg3QCUI1ZCXK0e/dulu
7ll1+GmzdqvfrCwyBkp6bzqAheKgZmhM1i8FCzdL1j0vVLixUBREYZEHERKBwkroGHC
wECicCZtz0V6GNzUD4fGwRg4asjxR09QYMXxw8coGh+NdczsGh/+mo1gPLDbh2yBISdv
VhAAmBwYFdcKhIQFat27N0m3durVanL7AEBicVSFOaJv8lt6u77KyUVwPh1dkWRhdVp
YsEBw8KAKMNTujfPkKe69GwJ4Me7V1aT/nLWZhCBiz3ndYE1UjC9PNwr8tKgfEQl4tn
UBDIHCFwfmowQLtTho+MA8fPqQpJSTkwPt27dnaZycnDTi9QWGa4ZCjgcwWDhoCJhZa1
2ZhSFg5FgYSWCw3I/s7QECAti6NmAIhB4BExkg/fzbMVhoyVkXDPix4/bVzMJgmraZ2f
kpIxzDRWgh/RRPx8kFRkyGANPabDITWRYhMNRU8YEPLS0FTqtXr4Y7d+6ot4uKisDc3J
wd36lTJ7h//z7wjyfpCww10wQL9YQIEoKDtMk/bW8+sBG627xacwtDoJB1SUqqAke1Tu
Jfr2puhgb/yqAhSagWEm2ThSFYSG90WF lzH0YFzU0L+zXVYKft2q8LFuGJEhh8h5eTic
Ds3fUzA0QXMMXfxcCJ9nfp0gWtWxrb9vDwYPuwJwTnzp0D/rG8NHoBQz6L0JleFu2rho
ec3x4j3tDpq0oCRg0JgY0ibfJ5aEniWxjqFXEiS0NWhpon8mM4aGpsYQTQpHHQ0PJ0lv
K2HFjETlTYpeZg0QUM+Sp860L70Gg4H4ZgEQJTWfgInNq1a8fiunXrBqtWrVJ3HY0Cgo
B/HF/6AkP+iq7eGB8Yg5okBEUNDL85onXcR+M3fB+GrAwhDFkZAoUDhrbJulB322i9JI
KDIJk8dwsHyzs1HbjjmiM5VGvLgyDiI0EkGHSyfvDgAXA6deoUmJqaVhtnsLS0BP4xQu
kLDDVF1AviRFaFmiASgcKJXzF6NUkcLNT8yBhaoF4SwdCj/1nmr5BF4aChpun1Hi7Mug
jHY2rcSyJIUCf1gUVY2fwB0uG6oeMwliYcXbI2nPjAKJVK4Cs0NFT9u2+++SbcuHEDhM
fwpS8wckZWhfvkWhgCRVvPSFdlc9CQCCKcho0LQY7DGDDoZpSBu7y8PBBq6tSp0KxZM9
i3bx+IxfnLDGBqcu5CYJh1EfSK50TFWRoChJogsjTk3wjHXrE0Iy2exdi0gaMIXm0bt
3a0jMzsZg3NxcMUVZVmnLli2t6/PcG8J1rHNgR05P6JJR8rCwsBh9/PjxIzTWYogoLe
VhjHPn3SuqtK/qXlJDuY7/b8Kff/7ZF63MuP379+++deuW8u7duyBhdCylobSUh6IxPJ
3BxK9itInvQy8T7+JNzZcUbGq+MM/rmQXZoyUc9Rew8i2wrZbmtddeGyd3AhUdS2koLe
VhQFHrbDLWU1ou44Ywyx+7t/B/rGyx7BGY+JaDiXcJNPcqq0aL7sMz32VDM4905ayo39
21QPMsqgFKHGULU+aqNM8aUNx6nbRVp+UqKqmA5NTbcCE2Ds6fP18rorzpn+i36De7d+
8u2U628K/chMAAEwhjR8CUIjCFamAcfr4AkLUC4LbHpvqGuzYnbXWz8N+LUqLiUCGoF+
```

Tip: Safari, 'show debug menu', change user agent



```
#og_quick>.og_o {
  width:61px;
  height:21px;
  background:transparent url('data:image/
png;base64,iVBORw0KGgoAAAANSUHEUgAAAD0AAAAXCAMAAACPi7eLAAABgFBMVEX19fXl5eb9/f35+fnc3Nzt7e3x8fH/////
iPEX7rg53n/Dh40Dq6uoiV+3+/v70t67vVVTb5PgWS/HwL46ju+3+xDBFe0/
xw73R0tLV2uX30XHi6vvUEi3zc2v0pZo2aey1xuzNzc2WuPzoJzVHgfv8fzZ2dnG1fb22IwpYvfgHDMYa/f//v1ek/n/+vn+//9BcucUQ
+TV1db5/fr55LLdqqe4wtxolfDaamvUwbnIzNTn3Nv+z1Hx8/rqkgvos0jDz+qJp+fTzMdxktn0hHn88vCVsu84cvlbfkwn/+
PSCnde6Tk2ktNvt5+f+/v+4zPn25uPR3vz08PAkpTrc40ju6+r5+v30jYv14N1Nfun79ebc08uLsPv668SdzKfy
+vMNNLP8NA9at6d4KhEy1nbt3z33dzg1NLZen2FqvbTVVbMJTXr4cztrjP989Qyw1T+4JYChQ/
u6eDv089y2IX7zML71syUr0S6IT0zxLbm4trsy8XMgn30094bfihI3fKDAAAC
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+8uzl6WPeG9exRiMd0Yv4a2bQQ/7fW72X3/6KyJj2bLyjusGYobfNLsd3lP6ZLuQbXcoIhxjS4SK/
q3Zb4391K2s0u2z0mzB2IUTzJ1cyt0Y8qT/6pty/cZaew2w2+66ER3rtR5frCgso5CsZ/bYUC2NRbyZ9Lp+S0CKW2I6W+
+VA4JFcxh4+zFdqWonYurnmc7nc7u8JHNdSGeNA/
BvN1SRCLJRTZsj2bFkuP6rqRxLLlxAKmkMdvPZ6LRHSEcp9eA0lSirDxtoSUh5QTnii+va8H3igc/
Ikqi4Y2kYR8UVvm9p63+Wm6CqpXC5LbU6P64SvN8TVqj6gc6qywgLq6/0F/01MLPmTDkTqdGqe8q3GjrrIvCY3j3jti
+lxc0Y0zd1WKJ1VY2HA+qUzLRu1PnpvDlkFq5shh2dyE3NGAbjACTvDTpdK/j9DXPzzJ0bIEuIo/
gv07PqFpIzsHXauxEhh6npIoz0Q0dAsIB6yetdsid2cMG0zgr1VSd1lIqv45fhsvqJgqh/
Nf8qbKQ3JxrBCGXE1q6c8gYs57aQpY53nUu0ifZ0pbivxAcnWLh3M5QvzEcZrgc
+ZXQAtFgJhg0iTqWG91Xld4JfH4Gw40d0J5i0zRU87ac7FM4nq5NJ99sZyrdhSw1EA1FK0caFkukNRkjv9K/Tx3JPPF5VBicgB0Z/
7jzvm02JHf8wgiZ
+eP95KW00G7h77YWF179JpceTVv3X3dSZwRoF53IPbu7l4iDkBwMWizqSIYBWPSAMQaAnQzjnBN8XPHLNU6S4zACVxgSQyDExjdU0ByGw
BxPvAWlmkxigNsP8rXujoncG6u6HCbwDKE1HdHX4oe/JNc4+0gy/
TYr3TXpy7iGkrFJF76xbZe26mriFSCIF1by0w6E5bGWBxfy0wcdR6+b/e3+pQg1dTkx5RAAAAAE1FTkSuQmCC') no-repeat 1px 3px;
  color:rgba(100%,100%,100%,0.01);
  letter-spacing:10px;
  overflow:hidden;
  margin:3px 3px 0;
  padding:5px 1px 1px;
}
```



**Inline the crap out of it.**

**CSS, JavaScript, images  
all belong in the html file.**



A black silhouette of a person climbing a tree, positioned on the left side of the slide. The person's arms are extended upwards, gripping a branch. The background is a light, textured grey.

**1. Store data & assets locally**

**2. Defer work**

Web Inspector — https://mail.google.com/mail/mu/

Elements Resources Scripts Timeline Profiles Storage Console

**DATABASES**

- remysharp@gmail.com
  - action\_queue\_14
  - cached\_contacts
  - cached\_conversation\_h...
  - cached\_labels**
  - cached\_messages
  - cached\_queries

| labelId          | po... | metadata   |
|------------------|-------|--|
| ^t               | 11    | [null,"^t","^t","#006633","#f1f5ec",null,true,599440327]                             |
| accountant       | 12    | [null,"accountant","Accountant","#006633","#f1f5ec",null,true,599440327]             |
| apple-mail-to-do | 13    | [null,"apple-mail-to-do","Apple Mail To Do","#006633","#f1f5ec",null,true,599440327] |
| bnm              | 14    | [null,"bnm","BNM","#006633","#f1f5ec",null,false,599440344]                          |
| bootcycle        | 15    | [null,"bootcycle","Bootcycle","#006633","#f1f5ec",null,false,599440344]              |
| cabal            | 16    | [null,"cabal","Cabal","#006633","#f1f5ec",null,false,599440351]                      |
| christmas        | 17    | [null,"christmas","Christmas","#006633","#f1f5ec",null,false,599440351]              |
| chromium-html5   | 18    | [null,"chromium-html5","chromium-html5","#006633","#f1f5ec",null,false,599440351]    |
| cookbook         | 19    | [null,"cookbook","Cookbook","#006633","#f1f5ec",null,false,599440351]                |
| cronjobs         | 20    | [null,"cronjobs","Cronjobs","#006633","#f1f5ec",null,false,599440351]                |
| deleted-messages | 21    | [null,"deleted-messages","Deleted Messages","#006633","#f1f5ec",null,true,599440351] |
| jsmentors        | 26    | [null,"jsmentors","jsmentors","#006633","#f1f5ec",null,false,599440351]              |
| left-logic       | 27    | [null,"left-logic","Left Logic","#006633","#f1f5ec",null,true,599440351]             |
| lucky-voice      | 28    | [null,"lucky-voice","Lucky Voice","#006633","#f1f5ec",null,false,599440351]          |
| magic-lantern    | 29    | [null,"magic-lantern","Magic Lantern","#006633","#f1f5ec",null,false,599440351]      |
| manning-authors  | 30    | [null,"manning-authors","Manning Authors","#006633","#f1f5ec",null,false,599440351]  |
| notes            | 31    | [null,"notes","Notes","#006633","#f1f5ec",null,false,599440351]                      |
| phonegap         | 32    | [null,"phonegap","PhoneGap","#006633","#f1f5ec",null,false,599440351]                |

**SESSION STORAGE**

**COOKIES**

- mail.google.com  
16 cookies (2.87KB)

Web Storage, Web SQL Database, IndexedDb

```
<html manifest="https://mail.google.com/mail/mu/manifest">
```

```
CACHE MANIFEST
```

```
# AppName: superpudu
```

```
# User: youremail@gmail.com
```

```
# Version: 505718b088be23a8
```

```
NETWORK:
```

```
/
```

```
*
```

```
//www.google.com
```

```
NETWORK:
```

```
https://www.google.com/ssi
```

```
https://ssl.gstatic.com/m/og/s
```

```
https://ssl.gstatic.com/m/og/s
```

```
https://ssl.gstatic.com/m/og/s
```

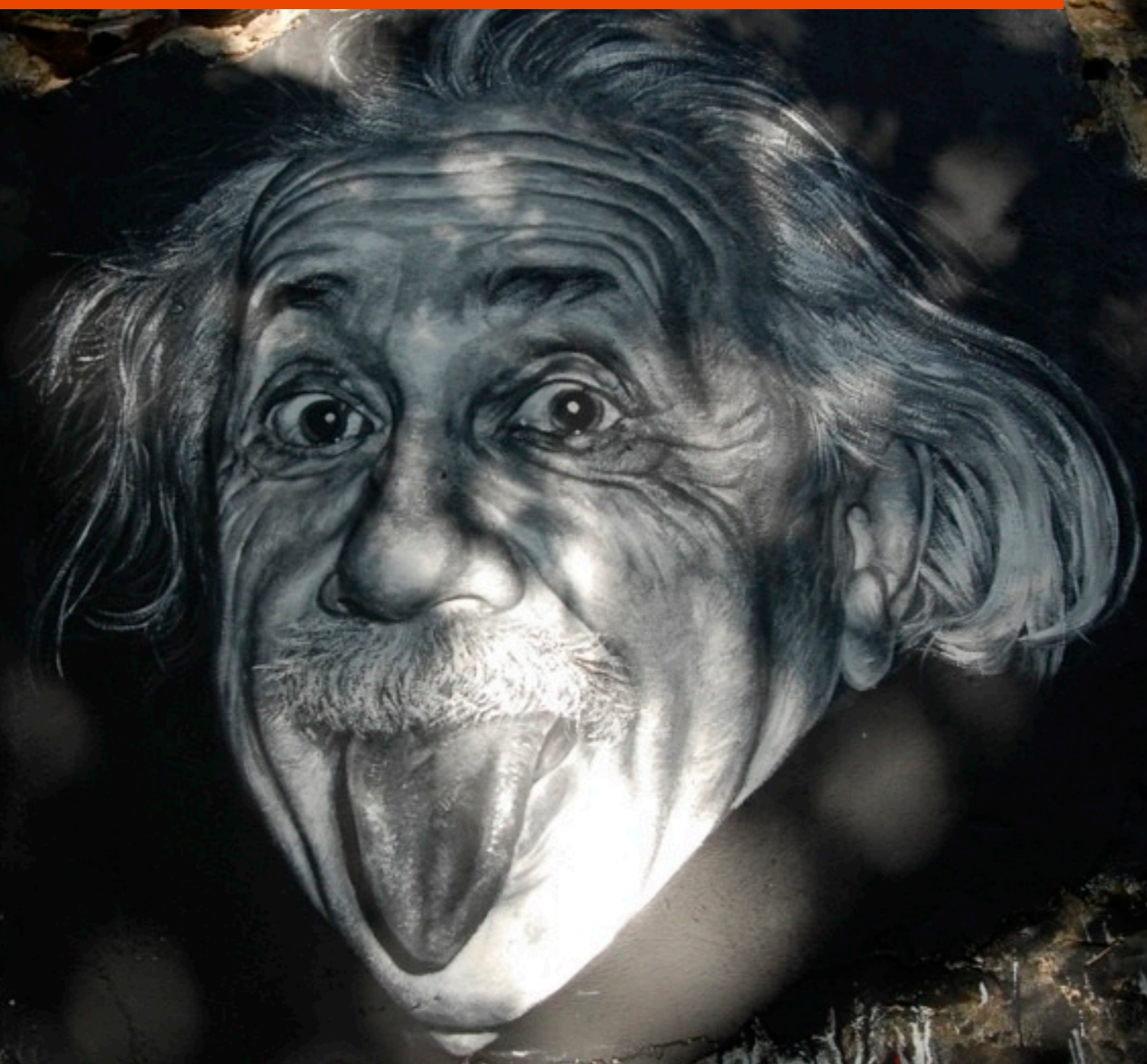
```
https://www.google.com/ssi
```



Manifest version control

Single page app - implicitly cached

**This next bit is a bit of a mind fuck.**



Web Inspector — https://mail.google.com/mail/mu/#tl/Inbox

Elements Resources Scripts Timeline Profiles Storage Console

Search Elements

```
<!DOCTYPE html>
<html manifest="https://mail.google.com/mail/mu/manifest">
  <head>...</head>
  <body style="visibility: visible; " class="...">
    <div id="nav">...</div>
    <noscript></noscript>
    <div id="aploadingdiv"></div>
    <div id="views">...</div>
    <div class="Uc">...</div>
    <div id="overlayviews"></div>
    <script>...</script>
    <script id="module_bidi">
      /*
        function Dq(a,b){return b?a[s](Eq," "):a}function Fq(a){Gq({target:a
        });a[0b]("textInput",Gq,!1)}function Gq(a){a=a[L];var b=a[V];c="";if(Un[hb](Dq
        (b,f))||Tn[hb](Dq(b,f))){var d=c=0,e=!1;b=Dq(b,f)[mc](Hq);for(var g=0;g<b[D];
        g++){var h=b[g];if(Un[hb](Dq(h,f))){c++;d++;}else Iq[hb](h)?e=!0:Sn[hb](Dq(h,f
        ))?d++:Jq[hb](h)&&(e=!0)}c=(d==0?e?1:0:c/d>0.4?-1:1)==-1?"rtl":"ltr";dir=c
        }var Eq=/<[^>]*>|&[^;]+;/g,Jq=\/d/,Hq=\/s+/,Iq=\/^http:\/\/\./;X.d("bidi");G(X,"
        bidi");X.b("bidi");
        */
    </script>
    <script id="module_menu">
      /*
        var Kq=TASKS_URL;function Lq(a){for(var b="",c=a.Gc,d=c[D],e=0;e<d;e+
        +){var g=c[e];b+=(a.Qe&&g.ja.B=="^t"?Mq(i)+Nq(i):"")+0q({label:g})}b+=a.Qe&&K
        q?Pq(i):"";a=a.ad;c=a[D];for(d=0;d<c;d++)b+=0q({label:a[d]});return b}
      */
    </script>
  </body>
</html>
```

Styles

- Computed Style
- Style Attribute element's "style" attribute
- script user agent stylesheet
- display: none;
- Inherited from body.Ec
- Style Attribute element's "style" attribute
- body inline stylesheet
- Metrics
- Properties
- Event Listeners

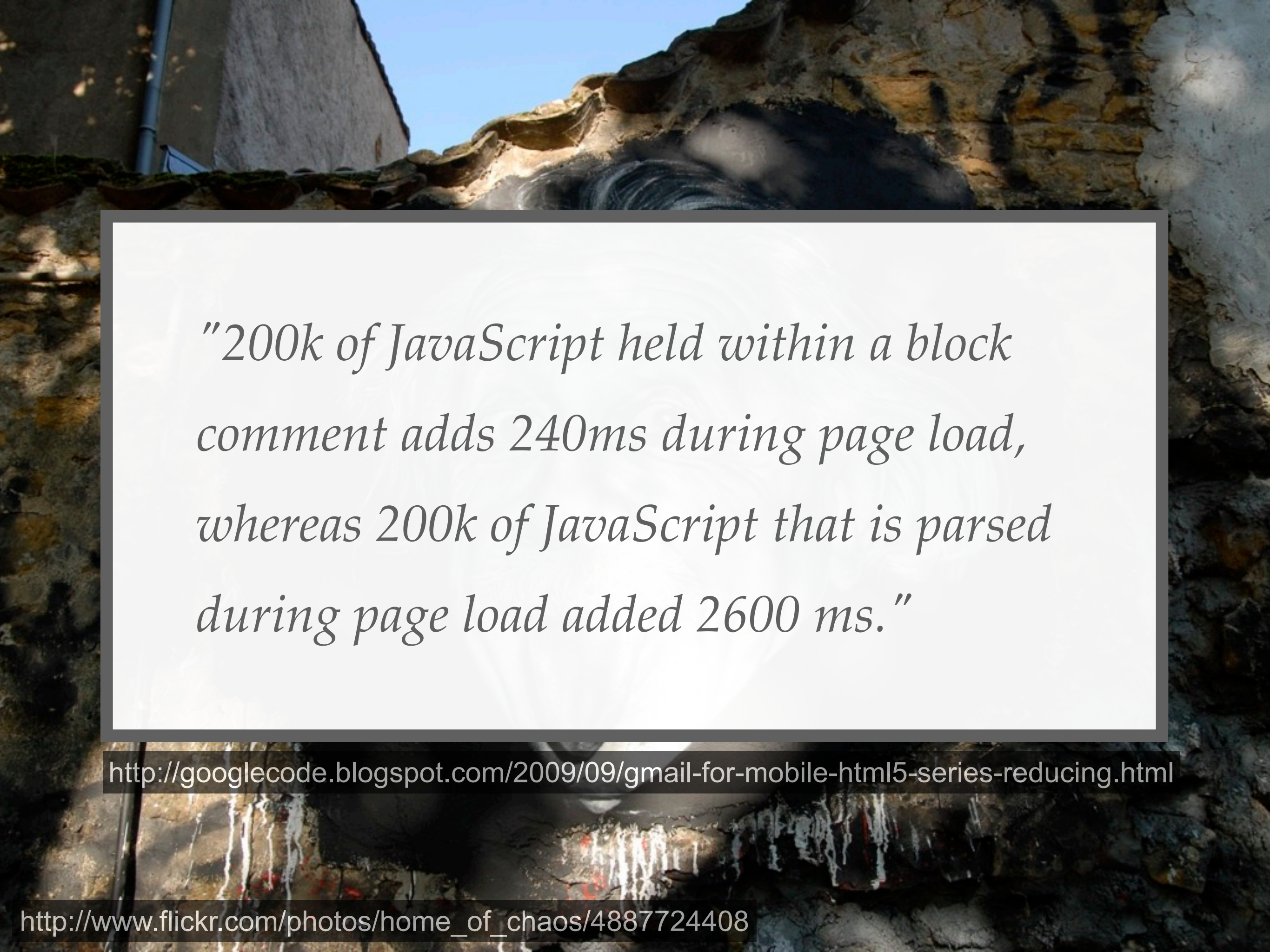
html body.Ec script#mod

A module name?

Commented out JavaScript?



```
function loadModule(id) {  
    var codeElement = document.getElementById(id),  
        code = codeElement.innerHTML;  
    eval(stripOutCommentBlock(code));  
}  
  
function stripOutCommentBlock(str) {  
    return str.replace(/\/\^*\/, '').replace(/\^*\^\/, '');  
}
```



*"200k of JavaScript held within a block comment adds 240ms during page load, whereas 200k of JavaScript that is parsed during page load added 2600 ms."*

<http://googlecode.blogspot.com/2009/09/gmail-for-mobile-html5-series-reducing.html>

[http://www.flickr.com/photos/home\\_of\\_chaos/4887724408](http://www.flickr.com/photos/home_of_chaos/4887724408)

**1. Inline as much as you can**

**2. Defer work as much as possible**

**3. Be prepared to get creative**



# JavaScript Libraries?

xui



**This is all the source code  
you need to start your  
project with:**

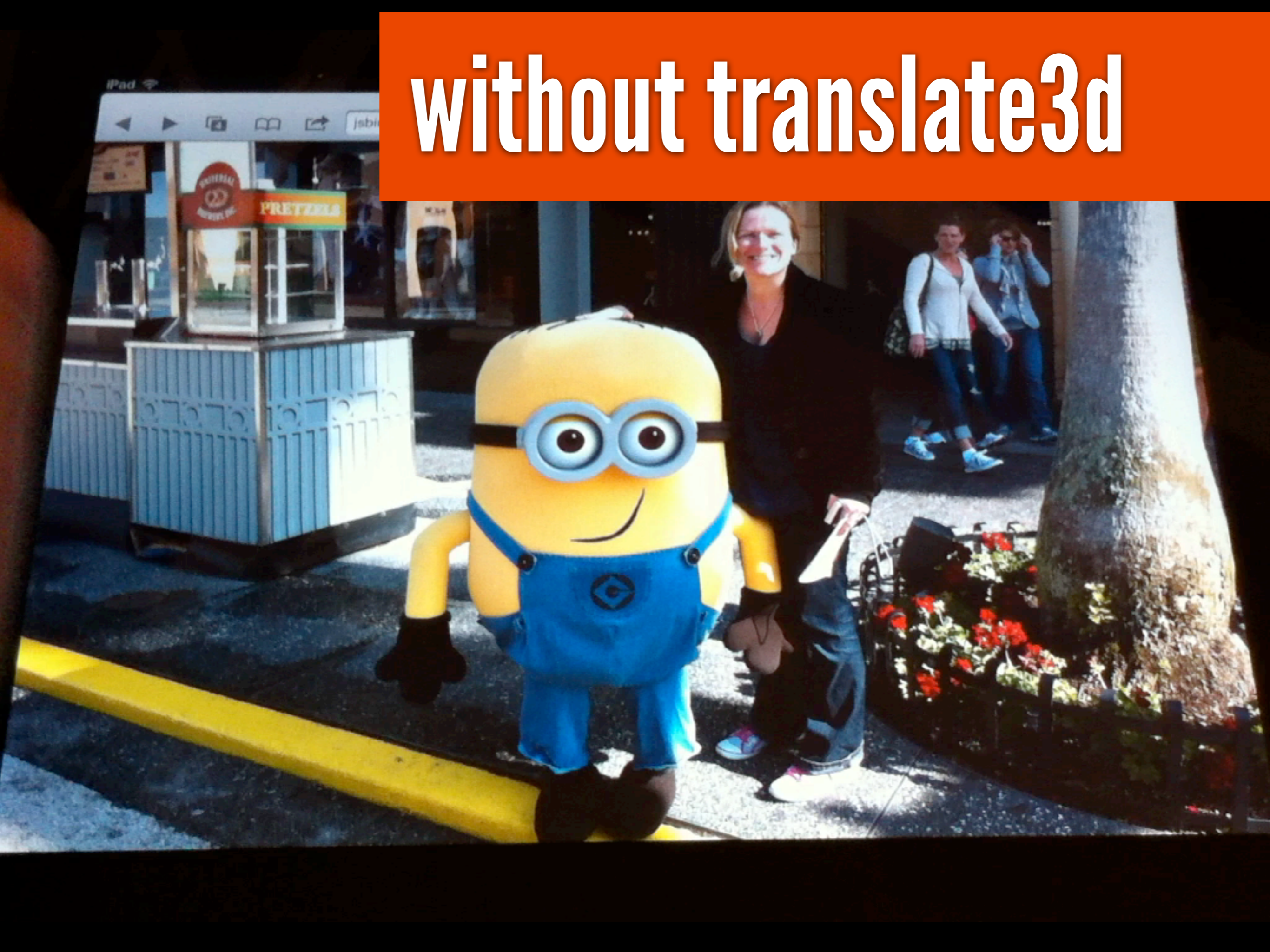
**For more information, see [vapourjs.org](https://vapourjs.org)**



# Titbits

(or tidbits if we're in the states)

without translate3d





with translate3d




iScroll 4

cubiq.org

home projects archives about contact \$ hire me

# iScroll 4



iScroll finally received a complete rewrite. Now  
 than ever and adds some new important feature  
 pinch/zoom, pull down to refresh, snap to element  
 more custom events for a higher level of hackab

TAGS: ANDROID, IPAD, IPHONE, JAVASCRIPT, MOBILE DEV

[Get the Script](#)
[Screencast](#)
[Live Demo](#)
[Public](#)

## Project info

Last code update: 2011.03.08 – v4.0 beta 4  
 Device compatibility: iPhone/Ipod touch >=3.1.1, iPad >=3.2, Android >=1.6,  
 Desktop Webkit  
[Discussion group](#)  
 QR Code opens demo page.

## Support development

future developments you may

<http://cubiq.org/iscroll-4>

Carrier 5:40 PM

iScroll demo: zoom

192.168.123.100/~ma... Google

# iScroll



Lorem ipsum dolor sit amet, con  
 incididunt ut labore et dolore ma  
 nostrud exercitation ullamco lab  
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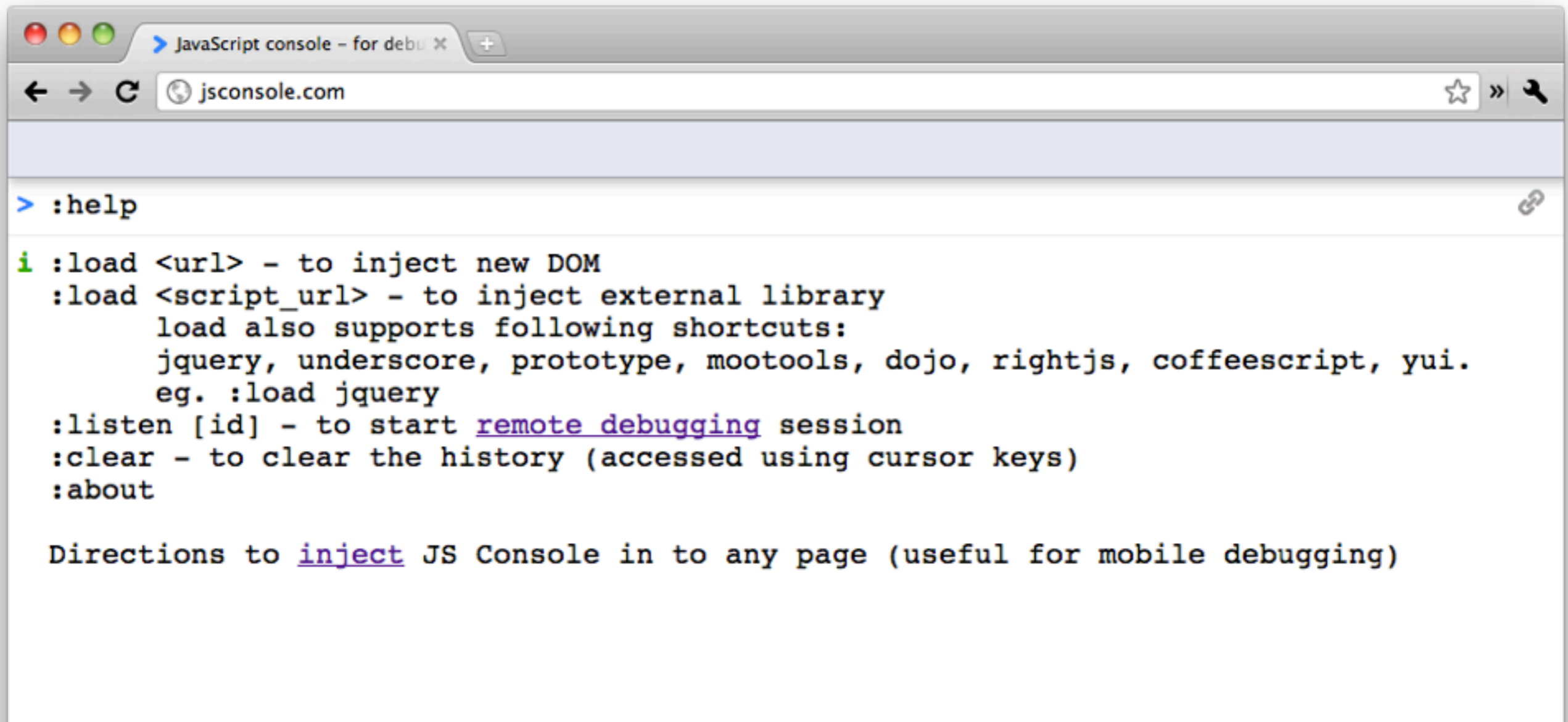
Navigation icons: back, forward, refresh, home, tabs (2)

| Platform         | Version      | Native | Opera Mobile |      |     |      | Opera Mini |     | Fennec |     | Ozone | Netfront | Phonegap |
|------------------|--------------|--------|--------------|------|-----|------|------------|-----|--------|-----|-------|----------|----------|
|                  |              |        | 8.5          | 8.65 | 9.5 | 10.0 | 4.0        | 5.0 | 1.0    | 1.1 | 0.9   | 4.0      | 0.9      |
| iOS              | v2.2.1       | A      |              |      |     |      |            |     |        |     |       | A        |          |
|                  | v3.1.3, v3.2 | A      |              |      |     |      |            | A   |        |     |       | A        |          |
|                  | v4.0         | A      |              |      |     |      |            | A   |        |     |       | A        |          |
| Symbian S60      | v3.1, v3.2   | C      | C            | C    |     | B    | C          | B   |        |     | C     | C        |          |
|                  | v5.0         | A      | C            | C    |     | A    | C          | A   |        |     |       | A        |          |
| Symbian UIQ      | v3.0, v3.1   |        |              | C    |     |      |            |     |        |     | C     |          |          |
|                  | v3.2         |        |              |      | C   |      |            |     |        |     | C     |          |          |
| Symbian Platform | 3.0          | A      |              |      |     |      |            |     |        |     |       |          |          |
| BlackBerry OS    | v4.5         | C      |              |      |     |      | C          | C   |        |     |       |          |          |
|                  | v4.6, v4.7   | C      |              |      |     |      | C          | B   |        |     |       | C        |          |
|                  | v5.0         | A      |              |      |     |      | C          | A   |        |     |       | A        |          |
|                  | v6.0         | A      |              |      |     |      |            | A   |        |     |       | A        |          |
| Android          | v1.5, v1.6   | A      |              |      |     |      |            |     |        |     |       | A        |          |
|                  | v2.1         | A      |              |      |     |      |            |     |        |     |       | A        |          |
|                  | v2.2         | A      |              |      |     | A    |            | C   |        | A   |       | A        |          |
| Windows Mobile   | v6.1         | C      | C            | C    | C   | B    | C          | B   |        |     |       | C        |          |
|                  | v6.5.1       | C      | C            | C    | C   | A    | C          | A   |        |     |       |          |          |
|                  | v7.0         | C      |              |      |     | A    | C          | A   |        |     |       |          |          |
| webOS            | 1.4.1        | A      |              |      |     |      |            |     |        |     |       | A        |          |
| bada             | 1.0          | A      |              |      |     |      |            |     |        |     |       |          |          |
| Maemo            | 5.0          | B      |              |      |     | B    |            |     | C      | B   |       |          |          |
| MeeGo            | 1.1          | A      |              |      |     | A    |            |     |        | A   |       |          |          |

debugging



# http://jsconsole.com



```
> :help

i :load <url> - to inject new DOM
:load <script_url> - to inject external library
  load also supports following shortcuts:
  jquery, underscore, prototype, mootools, dojo, rightjs, coffeescript, yui.
  eg. :load jquery
:listen [id] - to start remote debugging session
:clear - to clear the history (accessed using cursor keys)
:about

Directions to inject JS Console in to any page (useful for mobile debugging)
```

Remote mobile console - works on the real devices!

```
JavaScript console - for debu x
jsconsole.com
:listen geekninja
> :help
i :load <url> - to inject new DOM
:load <script_url> - to inject external library
load also supports following shortcuts:
jquery, underscore, prototype, mootools,
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Directions to inject JS Console in to any page
(useful for mobile debugging)
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"We hope you enjoy this update to Readability. It's **100% web technology** and **100% approval-free** and we're really proud of it. This release highlights the kind of firepower behind Readability. The team put this together **in two weeks**. It's a testament to building applications based upon web standards—effective, cross-device web applications can be **built in a fraction of the time of a native app**, and be **provided without restriction**."



**If you find you're writing lots of plugins for PhoneGap, etc, to support the device: then you're better off with using the native language.**

Just because you can,  
doesn't mean you should.



**Otherwise: rock on.**

**@rem**

**[leftlogic.com/tour](http://leftlogic.com/tour)**

**HTML5, jQuery for Designers  
& Node workshops**

