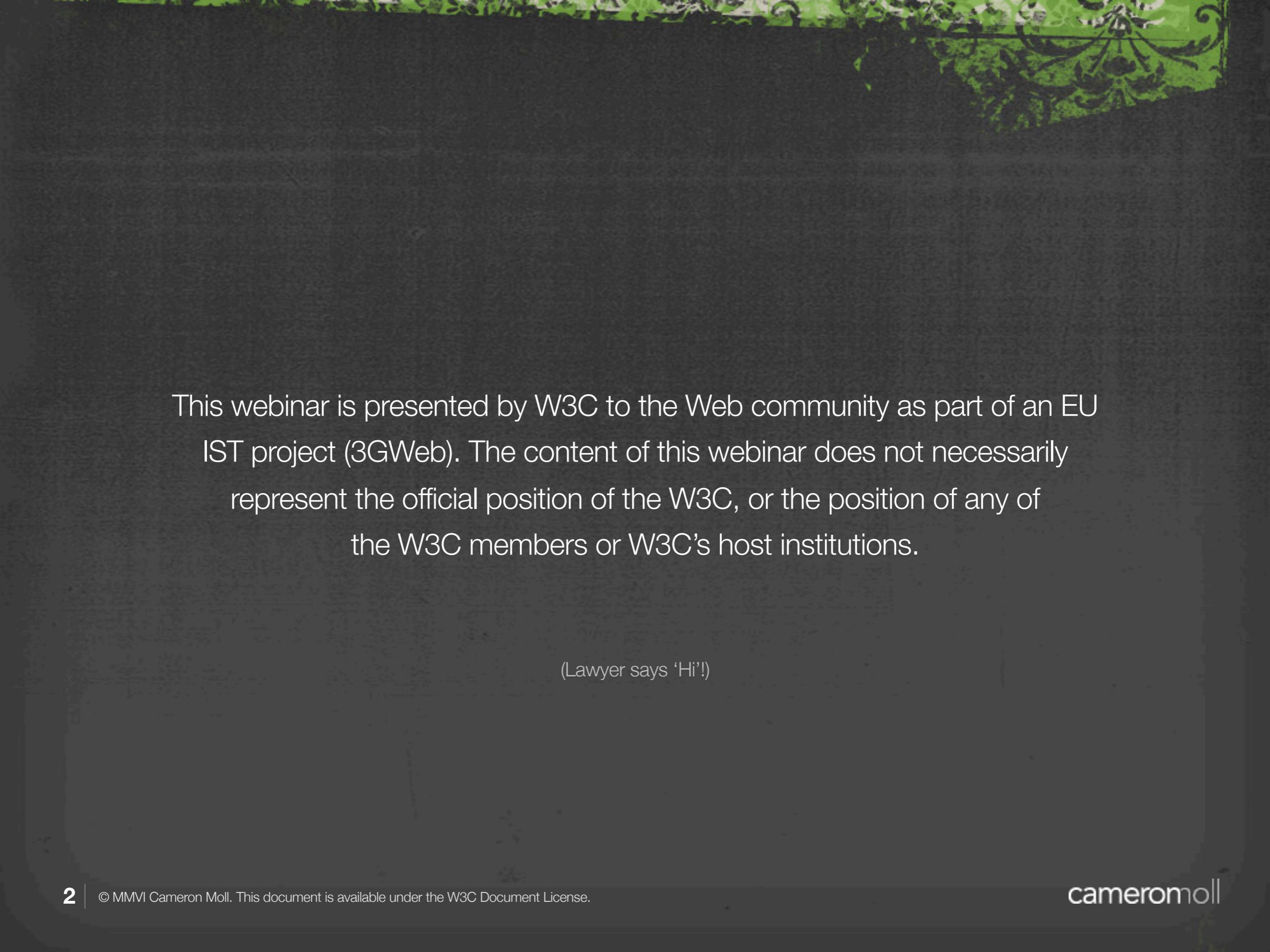


MOBILE WEB DESIGN

cameromoll



This webinar is presented by W3C to the Web community as part of an EU IST project (3GWeb). The content of this webinar does not necessarily represent the official position of the W3C, or the position of any of the W3C members or W3C's host institutions.

(Lawyer says 'Hi'!)



YOU ARE...

Experienced with XHTML/CSS.

Familiar with good markup techniques.

Unsure about this “mobile web thing”.



LEGACY



1910



“Pocket watches provide the closest historical parallel to the remarkable rise of the mobile phone.”

—Jon Agar, *Constant Touch*

STAGGERING NUMBERS

- 1996 GSM phones in 103 countries
- 2000 10 million i-mode users (Japan)
- 2002 1 billion mobile phone users worldwide
- 2009 3 billion mobile phone users worldwide



UK More mobile phones than humans...



QUANDARY

READER POLL

Highly scientific, statistically significant

(not really!)

~400

Participants

159

Unique handsets

(Motorola RAZR, Palm Treo 650, Sony Ericsson K750i / K700i / T610, Nokia 6230...)

19

Manufacturers

44

Countries



“Designers face a proliferation of capabilities that make the early [Mobile] Web look like a playground.”

—Joe Shepter, “The Pulse of Modern Design”

MOBILE WEB “PLAYGROUND”

WML, XHTML, -MP, -Basic...

Plethora of user agents

Varying coding practices, URLs, etc.

WHAT IS THE MOBILE WEB?

BBC Mobile - Home

Accessibility help
Text only
 The Mobile Edition
bbc.co.uk/mobile

BBC Homepage
BBC on your mobile
What do you get?
How do you get it?
What does it cost?
FAQ

Menu 11:06 PM Back

FIFA WC

FIFAworldcup.com
YAHOO! OFFICIAL PARTNER

Free SMS Alerts
Sign up now.
* Available only in US & EU

Sign In | Sign Up
Live Teams Info
News • Schedule • Matches
Latest News

Options Back

eBay Mobile

eBay Mobile
NOKIA 6670 Radio, Camera, H/F, Data Cable UNLOCKED!
Item number: 9145844491

Hide Item Image
Watch This Item

Menu 11:15 PM Back

Flickr Mobile

BETA MOBILE SITE | [Login](#)

Recent photos from everyone
[MVI_8942](#) | [RedMgn](#)

Options Back

Streetmap.co.uk

streetmap.co.uk

Streetmap | Homepage
Business Services
[Streetmap on 02](#)
Disclaimer
[Advertise on Streetmap](#)
[How to link to us](#)
[Search Tips](#)

Options Close

Technorati Mobile

Technorati Mobile
Search 44.1 million blogs for the latest on:

Search

Top searches this hour:
"World Cup"
Scoble
"Some Of All Fears"
Myspace
"Those Pesky Voters"

Menu 11:10 PM Back

Text message

3G < > 6/11

From **46645**

(1/2)Local Listings:
Candlewood Suites Salina
2650 Planet Avenue
Salina, Kansas 67401
785-823-9679
3.4 mi, S

Options Back



OPTIMISM

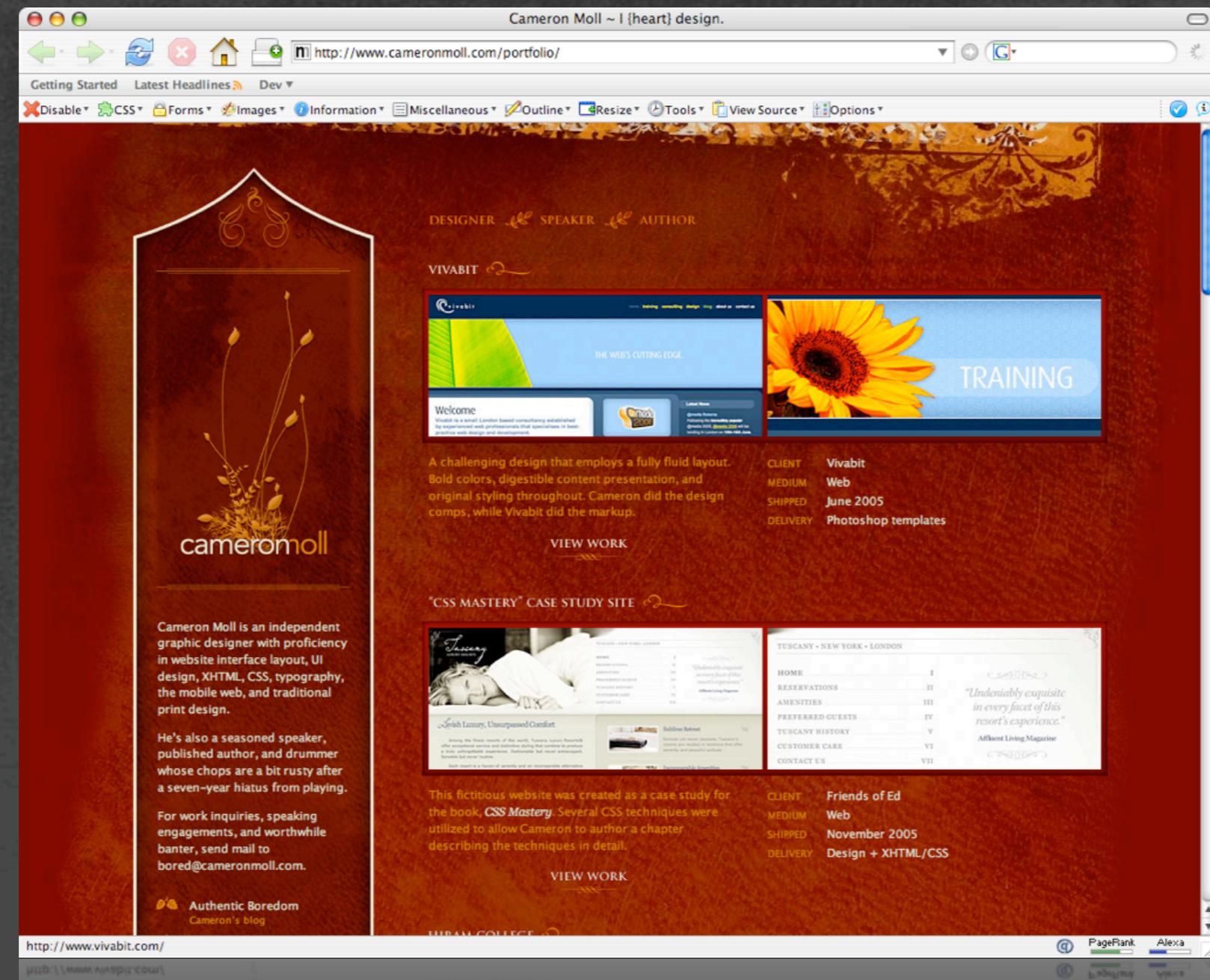
More mobiles than PCs.

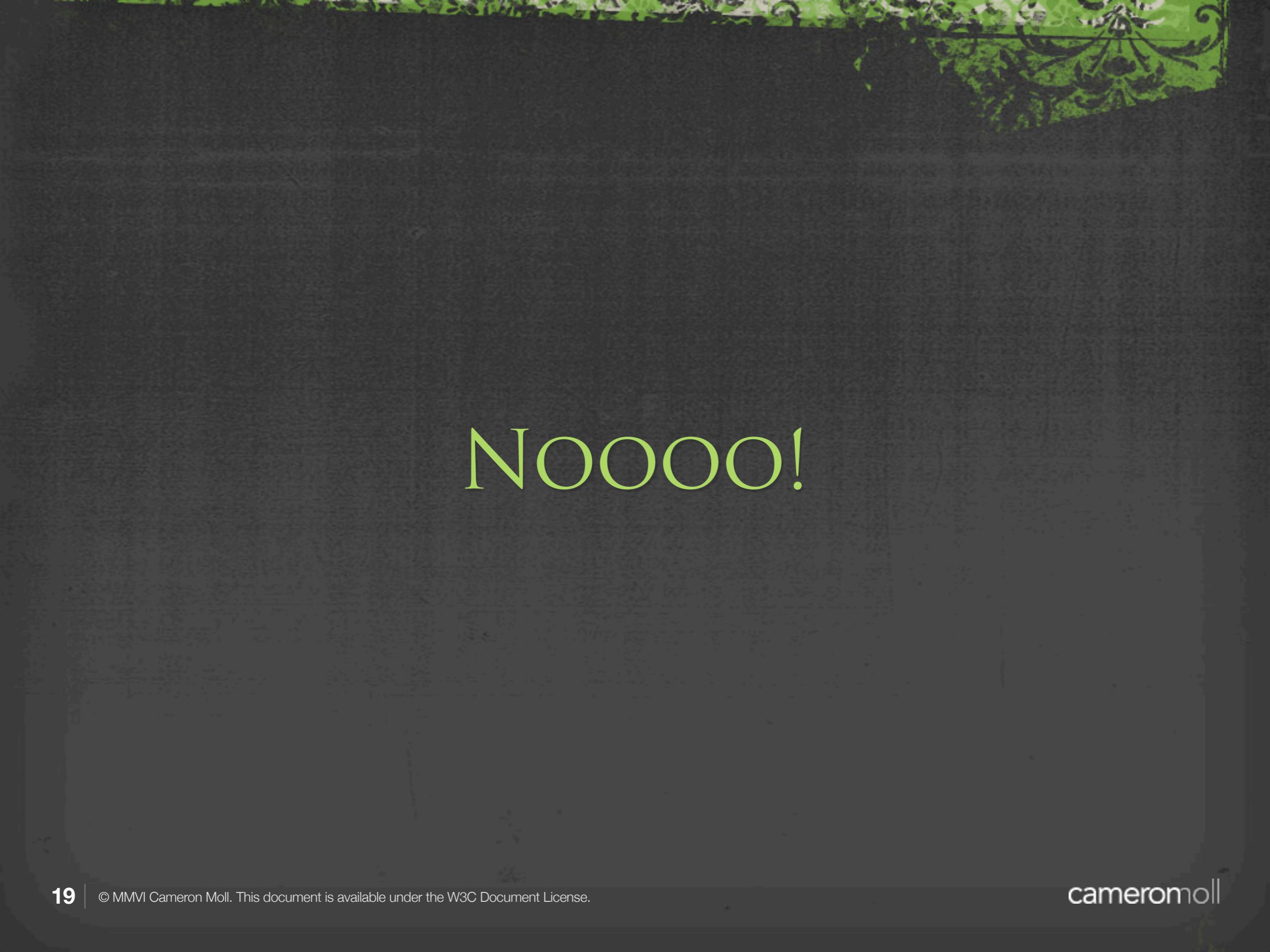
More mobiles than landline phones.

Web usage is continually increasing.

You can utilize existing skills.

CONTEXT

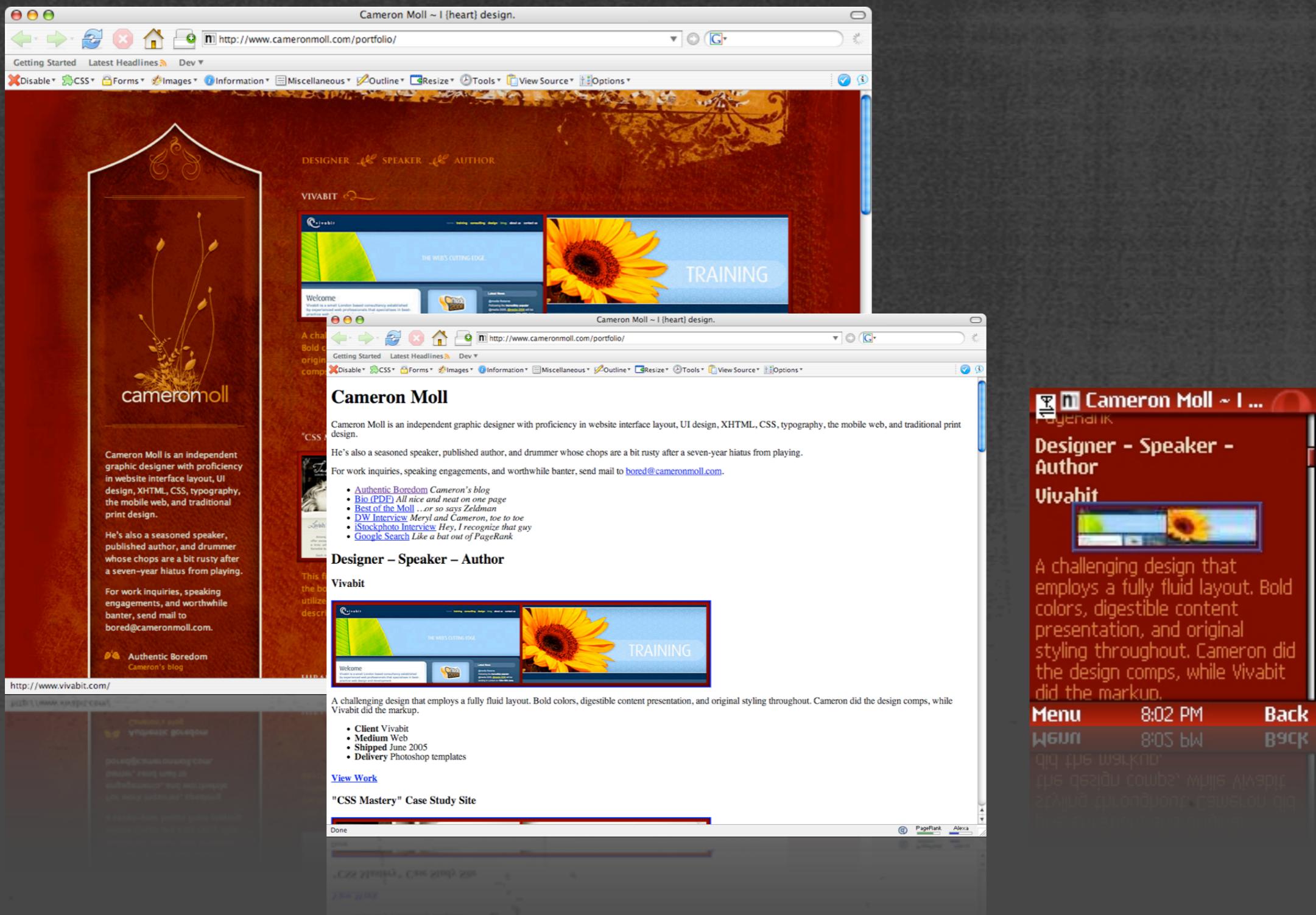




Noooo!



INSTEAD... What is contextually relevant?





MOBILE = MOBILITY



DESIGN = COMMUNICATION

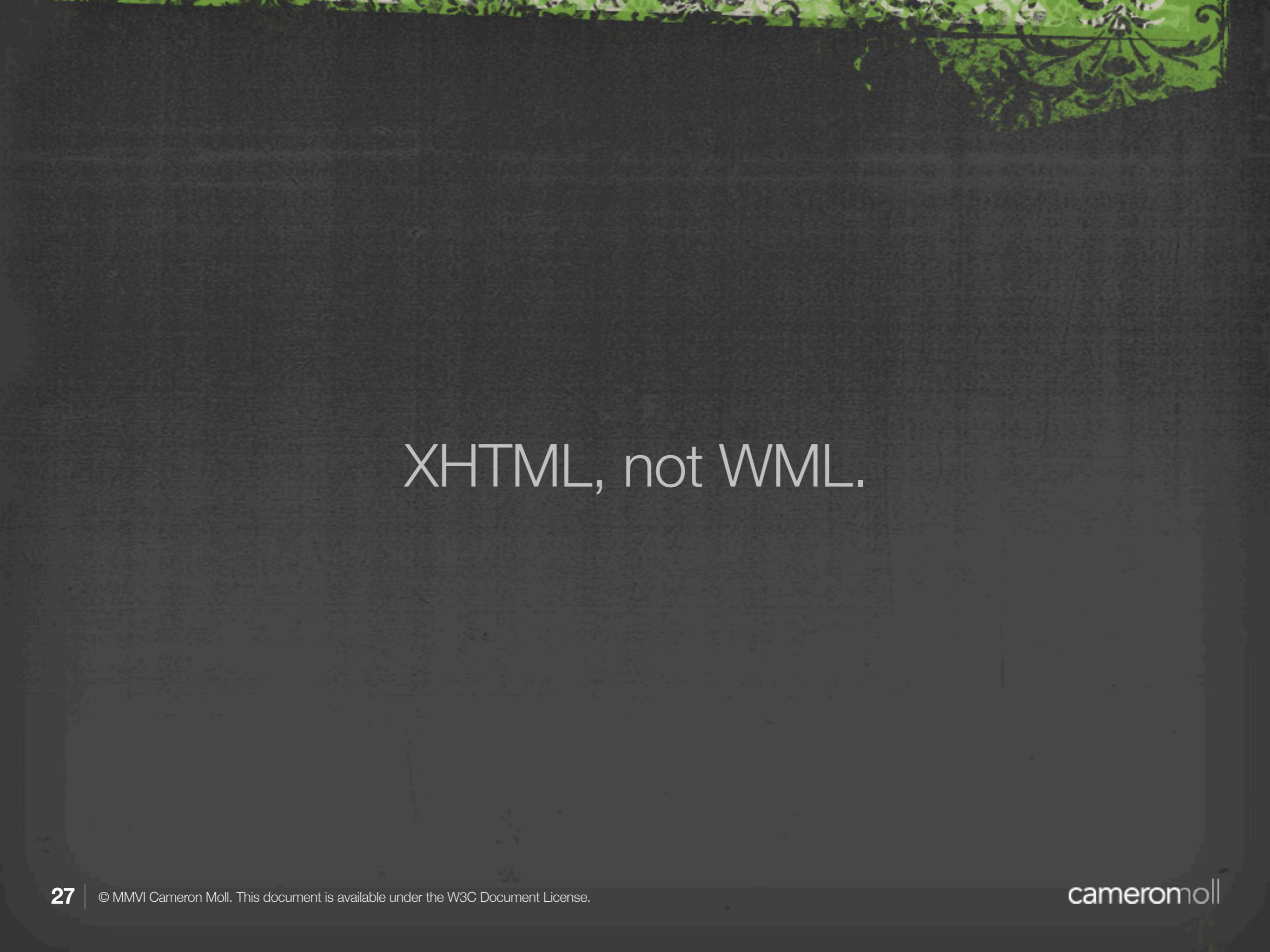
Therefore, mobile design is the art of
communicating within an
environment of mobility.



FUNDAMENTALS



Most devices sold today are WAP 2.0.



XHTML, not WML.

WHAT THAT MEANS...

English360 – Join the global conversation.

http://english360.com/ Google

english360
Join the global conversation.™

TEACHING CONSULTING SOFTWARE BLOG GLOSSARY JOBS CONTACT

Language learning for a global economy

English360 designs and manages language programs. We teach business English classes in Miami, and we deliver workshops and consulting services worldwide. Our clients are individuals and companies that "think global" and understand the competitive and collaborative advantage of improved communication. We use a new approach to teaching that focuses language learning on immediate business performance, resulting in improved presentations, effective meetings, efficient email, and successful negotiations. [Get started now](#)

Learners ► **Teachers** ► **Schools** ► **Managers** ►

Deliver your presentations with confidence, and manage meetings with fluency.

Help your students achieve their professional goals, and collaborate with your peers.

Support your teachers' classroom performance, and increase student enrollment.

Grow your talent pipeline, and transform language training ROI into business results.



RECENT DISCUSSION

Ugly American, or defending individual rights?
Here's a nice simple guide for US teachers (or anyone) travelling or working abroad, on how to adapt to a...
May 12, 2006

The language of "be here now"
This is fascinating: universal grammar vs. an entire culture based on mindfulness.
"The Pirahã are a unique people living

FREQUENTLY ASKED QUESTIONS

What is English360?
We're a language learning consultancy specializing in business English. Our clients are professionals, entrepreneurs, managers, and corporate training departments. We help identify language needs and opportunities, design solutions, and manage their language program for business results and high ROI.

But, most of all, we're language teachers. We combine business English teaching and communication training to assure business results for our clients.

Can I take classes from you?
Absolutely. We'll come to your office in the Miami area, or you can schedule classes in our offices on Brickell Avenue in the heart of the Miami financial district. We deliver

english360.com

English360 – Join the global conversation.

http://english360.com/ Google

english360
Join the global conversation.™

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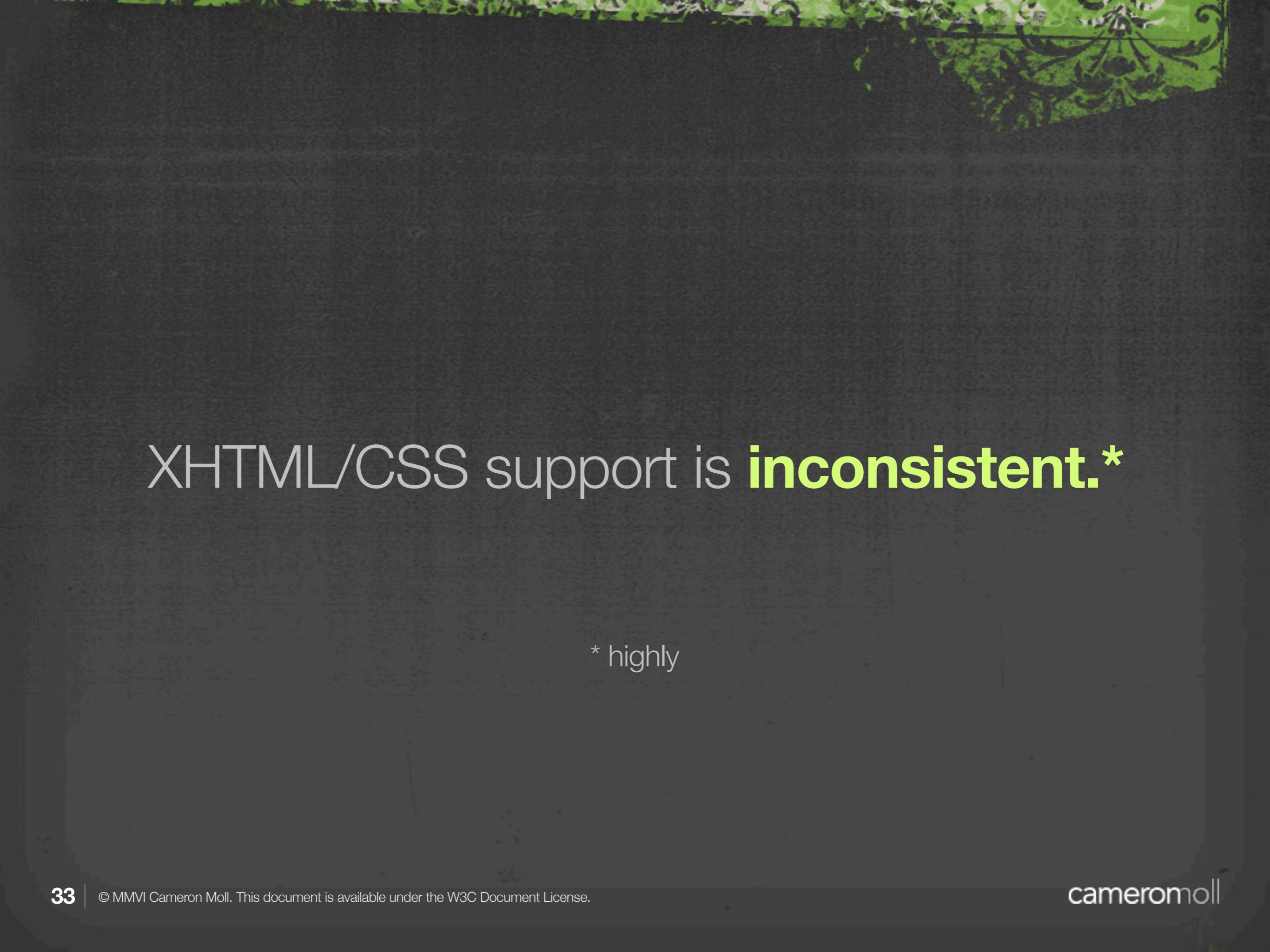
Can I take classes from you?
Absolutely. We'll come to your office in the Miami area, or you can schedule classes in our offices on Brickell Avenue in the heart of the Miami financial district. We deliver

english360.com

The image shows a Mac OS X desktop environment. A full-size browser window titled "English360 Mobile Edition" is open at the URL <http://www.english360.com/mobile/>. The page content includes a sidebar menu with links for Teaching, Consulting, Software, Blog, Glossary, Jobs, and Contact. Below the menu is a dark banner with the text: "English360 designs and manages language programs. We teach business English classes in Miami, and we deliver workshops and consulting services worldwide. [Get started now ▶](#)". The main content area features a post titled "Ugly American, or defending individual rights?", followed by a "Recent Discussion" section, "Also Recent" posts, and a "Contact" section with phone and email information. A "Switch to full version ▶" link is also present. To the right of the full-size window, a smaller, vertically compressed mobile version of the same website is displayed, showing the same layout and content but adapted for a smaller screen.



HOWEVER,

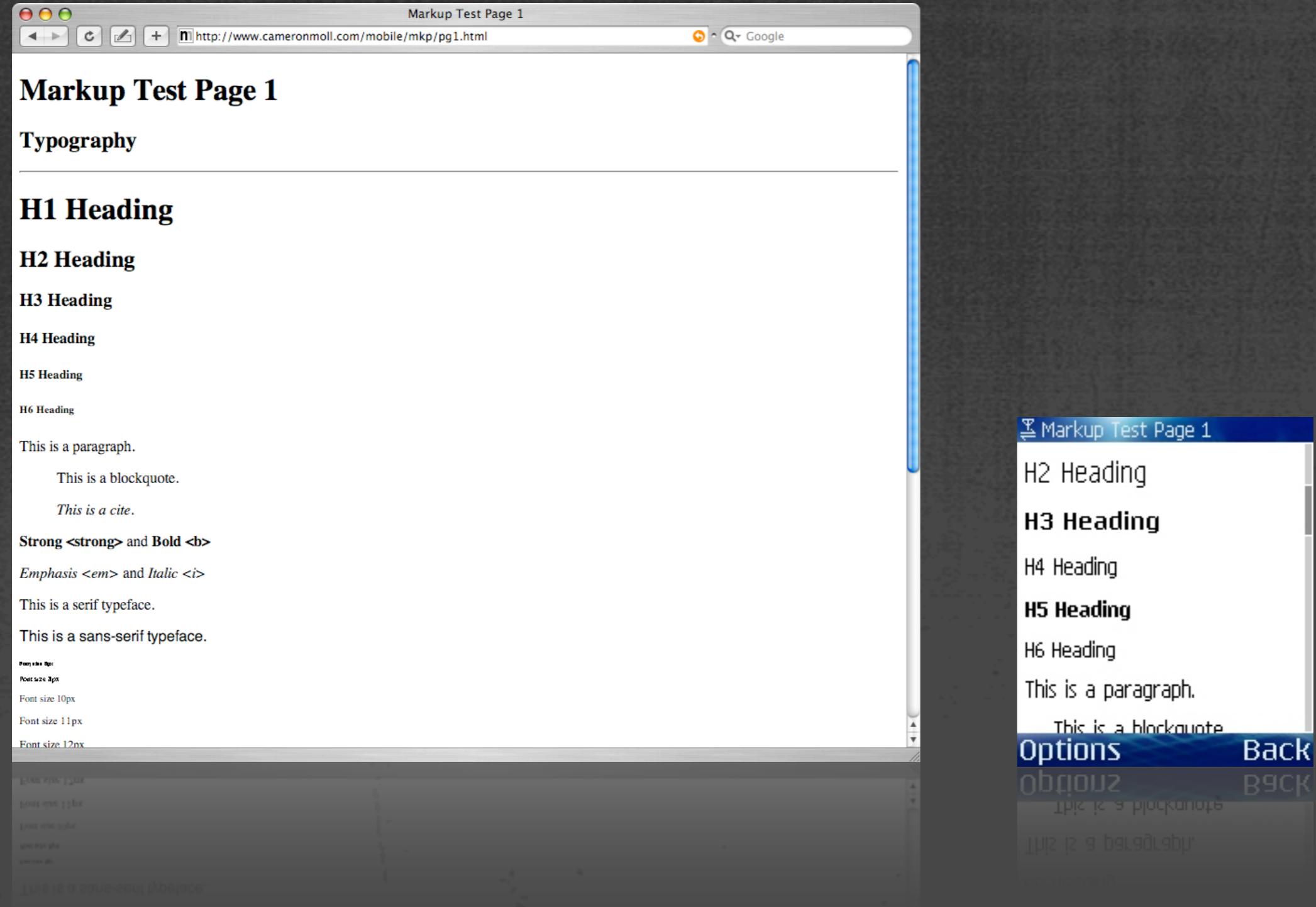


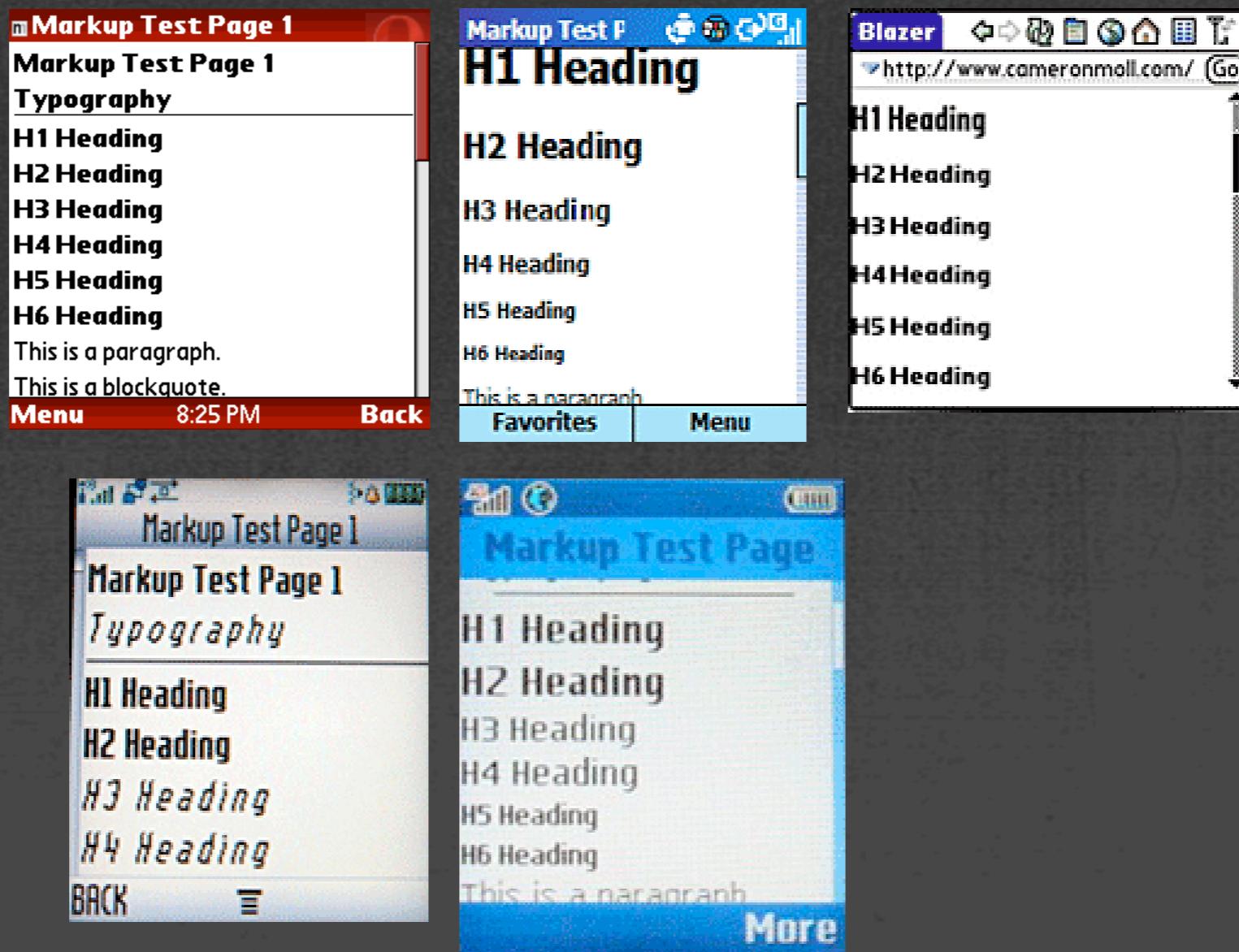
XHTML/CSS support is **inconsistent.***

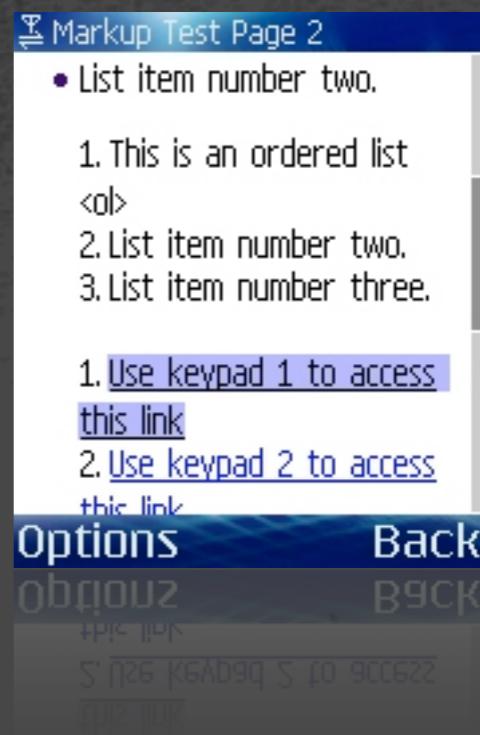
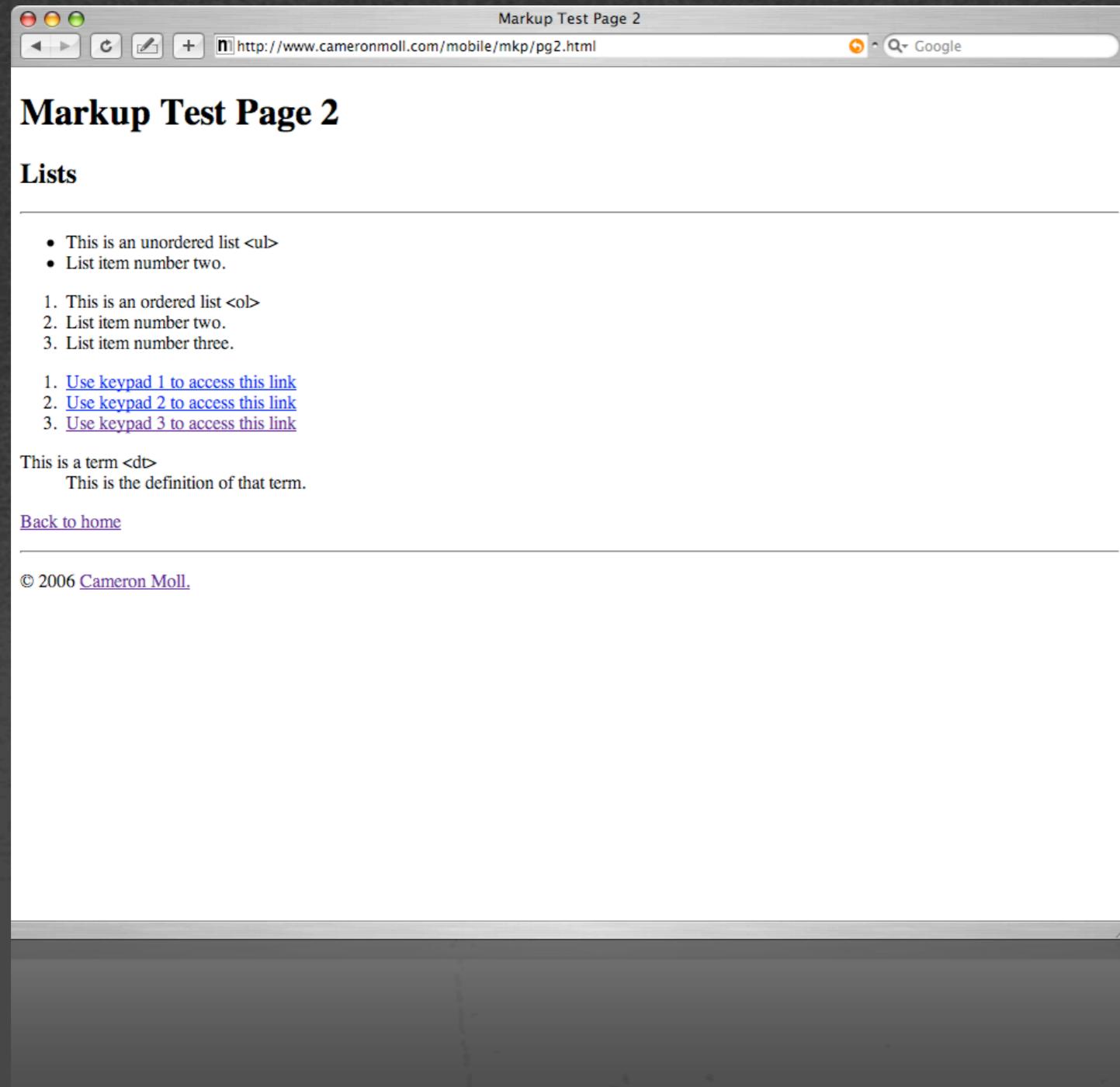
* highly

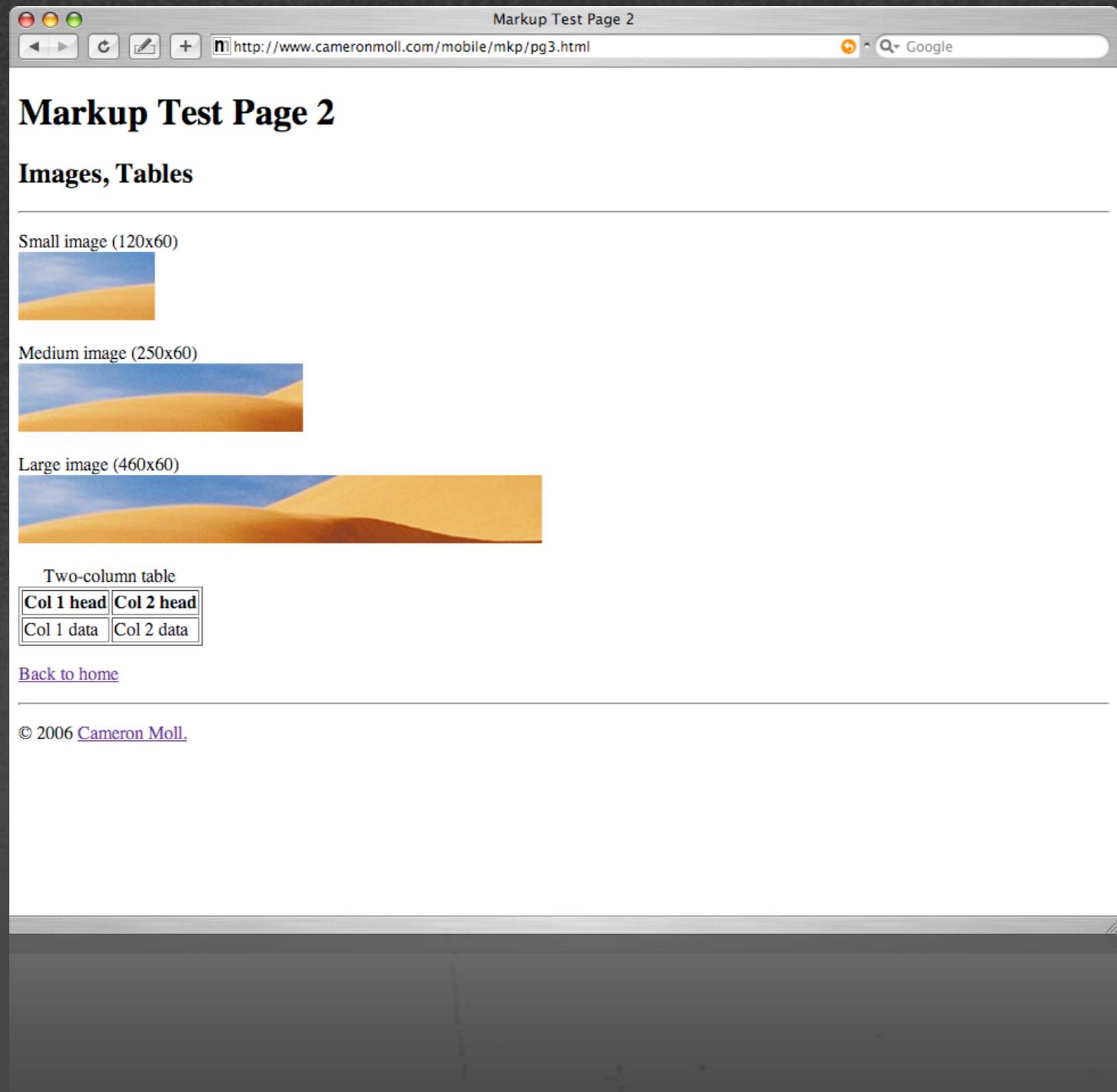
MARKUP TEST PAGES

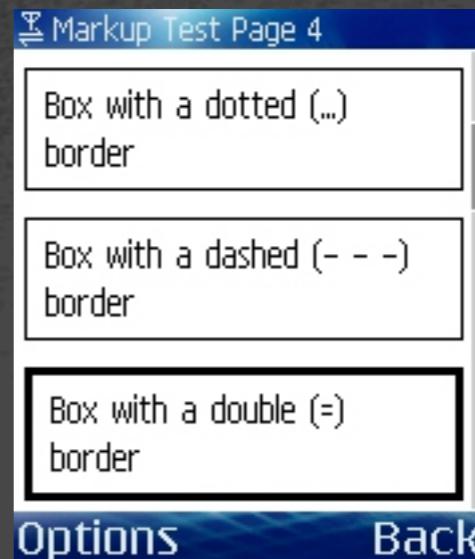
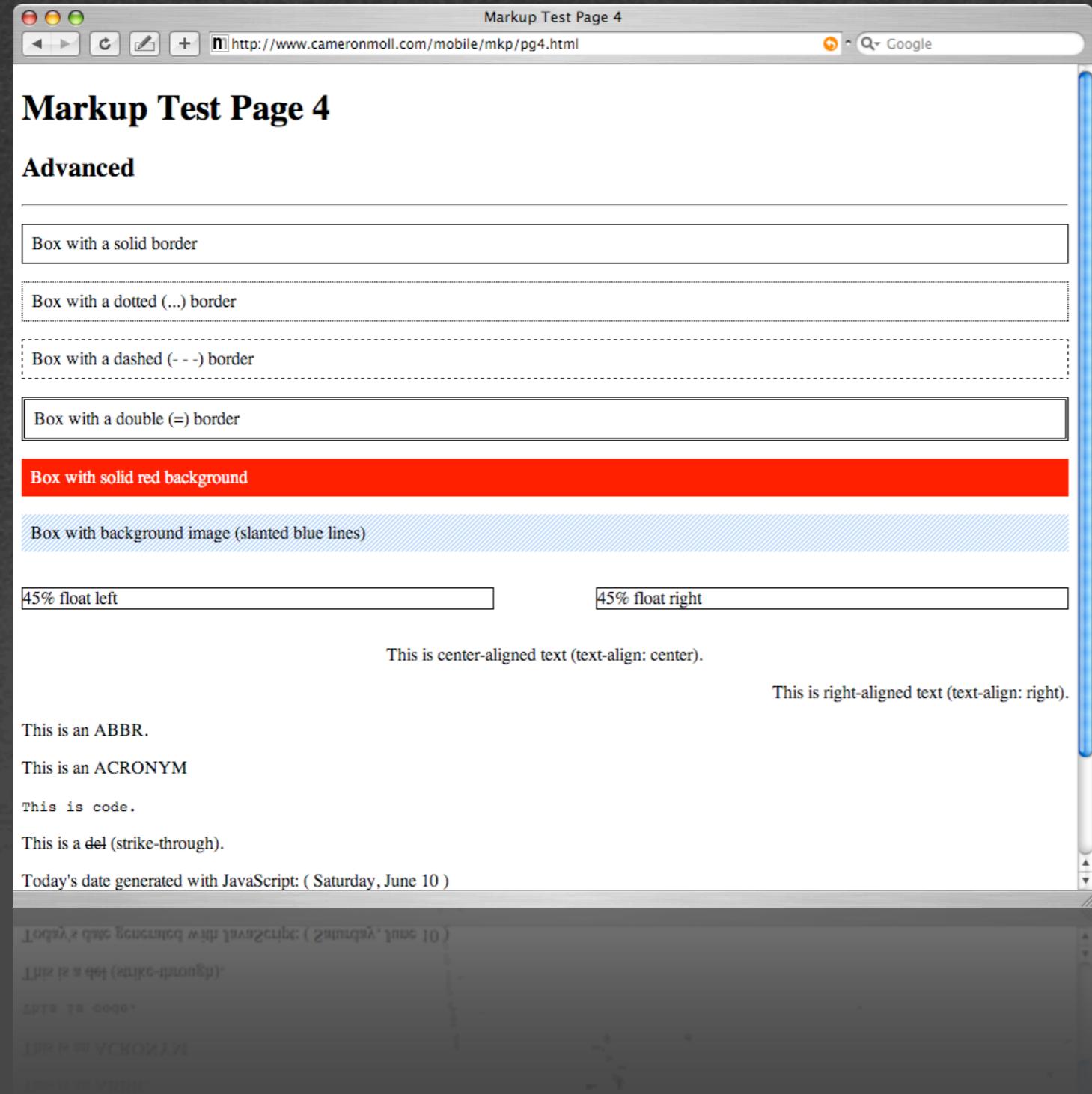
cameronmoll.com/mobile

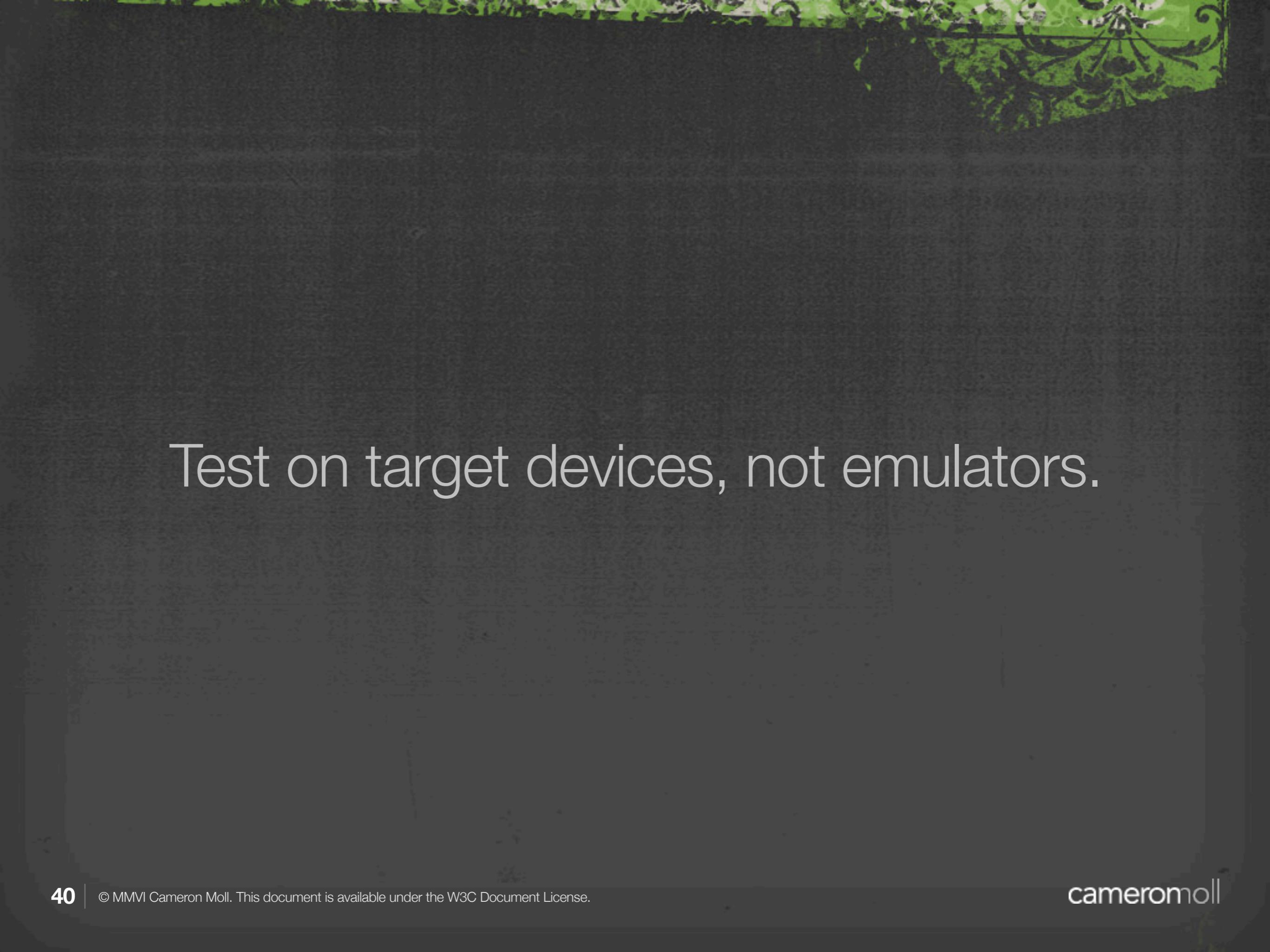












Test on target devices, not emulators.



METHODOLOGY

METHOD

Do nothing.

craigslist

san francisco bay area

w
sfc shb eby pen nby
post to classifieds

help subscriptions

search craigslist

community >

event calendar (2687)
 S M T W T F S
 26 27 **28** 1 2 3 4
 5 6 7 8 9 10 11
 12 13 14 15 16 17 18
 19 20 21 22 23 24 25

"fair" housing lawsuit
 see craigslist movie!
 weather quake tide
 > Katrina Relief <
 best-of-craigslist
 craigslist factsheet
 job boards compared
 list in space
 craigslist T-shirts
 ::: craig blog :::
 craigslist foundation
 download firefox
 progressive directory
 system status
 terms of use your privacy
 about us help
 © 2006 craigslist, inc

community (11759)
 activities lost+found
 artists musicians
 childcare news+views
 general politics
 groups rideshare
 pets volunteers
 events classes

personals (55472)
 strictly platonic
 women seek women
 women seeking men
 men seeking women
 men seeking men
 miss romance
 casual encounters
 missed connections
 rants and raves

discussion forums
 arts housing politic
 autos jobs psych
 beauty kink queer
 comp legal rof
 crafts loc pol science
 ecology m4m selfemp
 cults money shop
 feedback music spirit
 film night sports
 fitness npo/ngo testing
 fixit open trans
 food outdoor transit
 gaming over 50 travel
 garden parent tv
 haiku pefo w4w
 health pets wedding
 helpdesk philos women
 history poc writers

housing (27676)
 apts / housing
 rooms / shared
 sublets / temporary

rooms / shared
 sublets / temporary
 housing wanted
 housing swap
 vacation rentals
 parking / storage
 office / commercial
 real estate for sale

for sale (111501)
 barter auto parts
 bikes baby+kids
 boats cars+trucks
 books cds/dvd/vhs
 free clothes+acc
 furniture collectibles
 general computer
 jewelry electronics
 sporting garage sale
 tickets household
 tools motorcycles
 wanted music instr

services (25524)
 computer automotive
 creative household
 erotic labor/move
 event skill'd trade
 financial real estate
 legal sm biz ads
 lessons therapeutic

jobs
 accounting / finance
 admin / office
 arch / engineering
 art / media / design
 biotech / science
 business / mgmt
 customer service
 education / teaching
 government
 human resources
 internet engineering
 legal / paralegal
 marketing / pr / ad
 medical / health
 nonprofit sector
 retail / food / hosp
 sales / biz dev
 skilled trade / craft
 software / qa / dba
 systems / network'g
 technical support
 tv / film / video
 web / info design
 writing / editing
 [ETC] [part time]

gigs (4203)
 computer/event
 creative labor
 crew writing
 domestic talent
 adult

resumes (6910)

albany
 albuquerque
 allentown
 anchorage
 ann arbor
 asheville
 atlanta
 austin
 bakersfield
 baltimore
 batonrouge
 bellingham
 birmingham
 boise
 boston
 buffalo
 burlington
 chambana
 charleston
 charlotte
 chattanooga

chambana
 charleston
 charlotte
 chattanooga
chicago
 chico
 cincinnati
 cleveland
 co springs
 columbia
 columbus
 dallas
 davton
 delaware
 denver
 desmoines
 detroit
 el paso
 eugene
 fort myers
 fresno
 gainesville
 grand rapids
 greensboro
 harrisburg
 hartford
 honolulu
 houston
 humboldt
 indianapolis
 inland emp
 ithaca
 jackson
 jacksonville
 kansas city
 knoxville
 lansing
 las vegas
 lexington
 little rock
los angeles
 louisville
 madison
 maine
 medford
 memphis
 miami
 milwaukee
 minneapolis
 mobile
 modesto
 montana
 monterey
 montgomery
 nashville
 new hamp
 new haven
 new jersey
 new orleans
new york
 norfolk
 n dakota
 okla city
 omaha
 orange co
 orlando
 palm springs
 pensacola
 philadelphia
 phoenix
 pittsburgh
portland
 providence
 puerto rico
 raleigh
 redding
 reno
 richmond
 rochester
 sacramento
 salt lake
 san antonio
san diego
santa fe
 seattle
 s dakota
 shreveport
 spokane
 st louis
 stockton
 syracuse
 tallahassee
 tampa bay
 toledo
 tucson
 tulsa
 ventura co
wash, DC
 western mass
 west palm
 west virginia
 Wichita
 wyoming
canada
 calgary
 edmonton
 halifax
 hamilton
 kitchener
 montreal
 ottawa
 quebec
 saskatoon
 toronto
 vancouver
 victoria
 winnipeg
americas
 buenos aires
 lima
 mexico city
 rio de janeiro
 costa rica
 santiago
 sao paulo
 tijuana
uk & ie
 belfast
 birmingham
 bristol
 cardiff
 dublin
 edinburgh
 glasgow
 leeds
 liverpool
 london
 manchester
 oxford
 newcastle
africa
 cairo
 cape town
 jo burg
europe
 amsterdam
 athens
 barcelona
 berlin
 brussels
 copenhagen
 florence
 frankfurt
 geneva
 madrid
 milan
 moscow
 munich
 paris
 prague
 rome

31 kb
(markup only)

METHOD

Do nothing.

Strip images and styling.

METHOD

Do nothing.

Strip images and styling.

Handheld stylesheets.

METHOD

Do nothing.

Strip images and styling.

Handheld stylesheets.

Mobile-specific site/app.



MINIATURIZE OR MOBILIZE?

MINIATURIZE

Repurpose existing content

craigslist.org

craigslist: san francisco bay area classifieds for jobs, apartments, personals, for sale, services, community, and events

<http://www.craigslist.org/>

craigslist

[post to classifieds](#)
[help, faq, abuse, legal](#)

search craigslist

choose type >

event calendar (3086)

S	M	T	W	T	F	S
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1
2	3	4	5	6	7	8

[nonprofit boot camp](#)
["fair" housing lawsuit](#)
[weather quake tide](#)
[Katrina Relief](#)
[best-of-craigslist](#)
[craigslist factsheet](#)
[job boards compared](#)
[craigslist movie & dvd](#)
[craigslist T-shirts](#)
[::: craig blog :::](#)
[craigslist foundation](#)
[progressive directory](#)
[subscriptions](#)

[system status](#)

[terms of use](#) [privacy](#)

san francisco bay area [sfc](#) [sby](#) [eby](#) [pen](#) [nby](#)

community (12348)	housing (33892)	jobs
activities	apts / housing	accounting+finance
lost+found	rooms / shared	admin / office
artists	sublets / temporary	arch / engineering
musicians	housing wanted	art / media / design
childcare	housing swap	biotech / science
new+view	vacation rentals	business / mgmt
general	parking / storage	customer service
politics	office / commercial	education
groups	real estate for sale	government
rideshare		human resources
pets		internet engineers
volunteers		legal / paralegal
events		marketing / pr / ad
classes		medical / health

personals (61983)	for sale (130636)	
strictly platonic	barter	auto parts
women seek women	bikes	baby+kids
women seeking men	boats	cars+trucks
men seeking women	books	cds/dvd/vhs
men seeking men	free	clothes+acc
misc romance	furniture	collectibles
casual encounters	general	computer
missed connections	jewelry	electronics
rants and raves	sporting	garage sale

discussion forums		
arts	housing	politic
autos	jobs	psych
beauty	kink	queer
comp	legal	rofo
crafts	loc pol	sci
eco	m4m	selfem
educ	money	shop
feedbk	music	spirit
film	night	sports
fitness	npo	testing
fixit	open	transg
food	outdoor	transit
games	over 50	travel
garden	parent	tv
haiku	pefo	w4w
health	pets	wed
help	philos	women
histories	pos	writore

services (26920)		
computer	automotive	
creative	household	
erotic	labor/move	
event	skill'd trade	
financial	real estate	
legal	sm biz ads	
lessons	therapeutic	

gigs (4931)		
computer	event	
creative	labor	
crew	writing	
domestic	talent	
	adult	

resumes (7435)		
desmoines	phoenix	
detroit	pittsburgh	
el paso	providence	
eugene	puerto rico	
fort myers	raleigh	
fresno	redding	
gainesville	reno	
grand rapids	richmond	
greensboro	rochester	
harrisburg	sacramento	
hartford	salt lake	
honolulu	cairn	

albany	las vegas	spokane	uk & ie
albuquerque	lexington	st louis	belfast
allentown	little rock	stockton	birmingham
anchorage	los angeles	syracuse	bris托
ann arbor	louisville	tallahassee	cardiff
asheville	madison	tampa bay	dublin
atlanta	maine	toledo	edinburgh
austin	medford	tucson	glasgow
bakersfield	memphis	tulsa	leeds
baltimore	miami	ventura co	liverpool
baton rouge	milwaukee	wash, DC	london
bellingham	minneapolis	west mass	manchester
birmingham	mobile	west palm	oxford
boise	modesto	west virginia	newcastle
boston	montana	wichita	
buffalo	monterey	wyoming	europe
burlington	montgomery		amsterdam
chambana	nashville	canada	athens
charleston	new hamp	calgary	barcelona
charlotte	new haven	edmonton	berlin
chattanooga	new jersey	halifax	brussels
chicago	new orleans	hamilton	copenhagen
chico	new york	kitchener	florence
cincinnati	norfolk	montreal	frankfurt
cleveland	n dakota	ottawa	geneva
co springs	okla city	quebec	madrid
columbia	omaha	saskatoon	milan
columbus	orange co	toronto	moscow
dallas	orlando	vancouver	munich
dayton	palm springs	victoria	paris
delaware	pensacola	winnipeg	prague
denver	philadelphia		rome
desmoines	phoenix	americas	stockholm
detroit	pittsburgh	argentina	vienna
el paso	providence	lima	
eugene	puerto rico	mexico city	asia
fort myers	raleigh	rio de jan	bangalore
fresno	redding	costa rica	bangkok
gainesville	reno	santiago	beijing
grand rapids	richmond	sao paulo	chennai
greensboro	rochester	ljuana	delhi
harrisburg	sacramento	africa	hyderabad
hartford	salt lake	cairn	hong kong

Done

PageRank  Alexa 

PRIMARY USE CASES

Choose area (city)

Browse category

~~Post a listing~~

Search

Event Calendar

Forums

USE CASE HIEARCHY

1. Search Top element
2. Categories Most frequented
3. Event calendar Access to today, tomorrow
4. Choose area By zip code or city name
Assume San Francisco by default



San Francisco Bay Area

Search

JOBS

[Business Management,](#) [Software/QA/DBA,](#) [Web/Info Design,](#) [All...](#)

HOUSING

[Apartments/Housing,](#) [Rooms/Shared,](#) [Housing Wanted,](#) [Office/Commercial,](#) [All...](#)

FOR SALE

[Auto Parts,](#) [Bikes,](#) [Computer,](#) [Garage Sale,](#) [Tickets,](#) [Wanted,](#) [All...](#)

PERSONALS

[Strictly Platonic,](#) [Women Seeking Men,](#) [Men Seeking Women,](#) [All...](#)

EVENT CALENDAR

[Today,](#) [Tomorrow,](#) [All...](#)

Select a City

Enter your zip code or city name:

 .craigslist.org

©2006 craigslist, inc.

Search

Text or numeric

Categories

Most frequented

City

Zip or name; would offer suggestions if not found

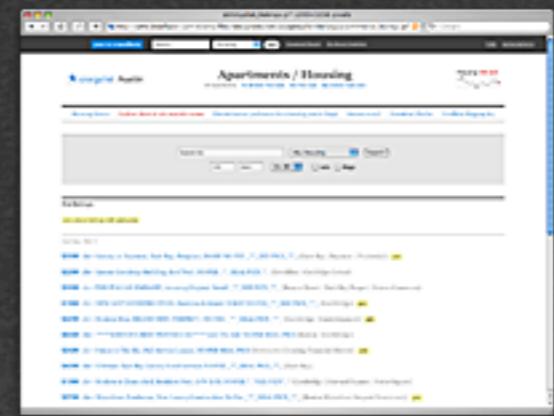
Opera Mini

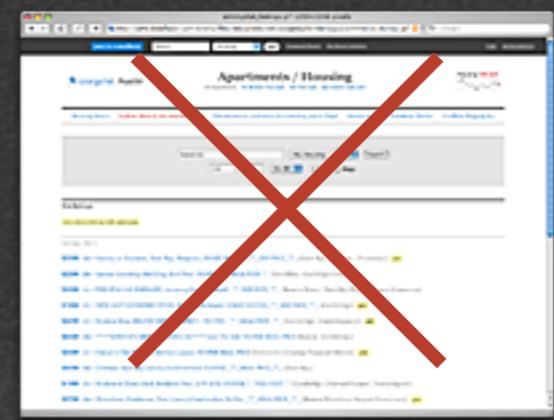
The screenshot shows the Craigslist mobile homepage for the San Francisco Bay Area. At the top is the Craigslist logo with "MOBILE" underneath. Below it is a search bar with the placeholder text "Search". A horizontal line separates the search bar from the main menu categories. The categories listed are "JOBS", "HOUSING", "FOR SALE", "PERSONALS", and "EVENT CALENDAR". Each category has a corresponding link below it. Another horizontal line follows, and then there is a section titled "Select a City" with a text input field and a "Go" button. At the bottom is a copyright notice: "©2006 craigslist, inc."

This screenshot shows the same Craigslist mobile homepage as the first one, but with a red menu bar at the top. The menu bar includes the Craigslist logo, a globe icon, and the word "mobile". Below the menu bar, the page structure is identical to the first screenshot, featuring the "San Francisco Bay Area" header, search bar, and various category links. A timestamp "2:46PM" is visible in the center of the menu bar, and "Menu" and "Back" buttons are on the left and right respectively.

MOBILIZE

Content-, Context-, Component-specific





LBS





FORCES

SMS

Texting; SMS search

J2ME

Java-based apps, interactivity

AJAX

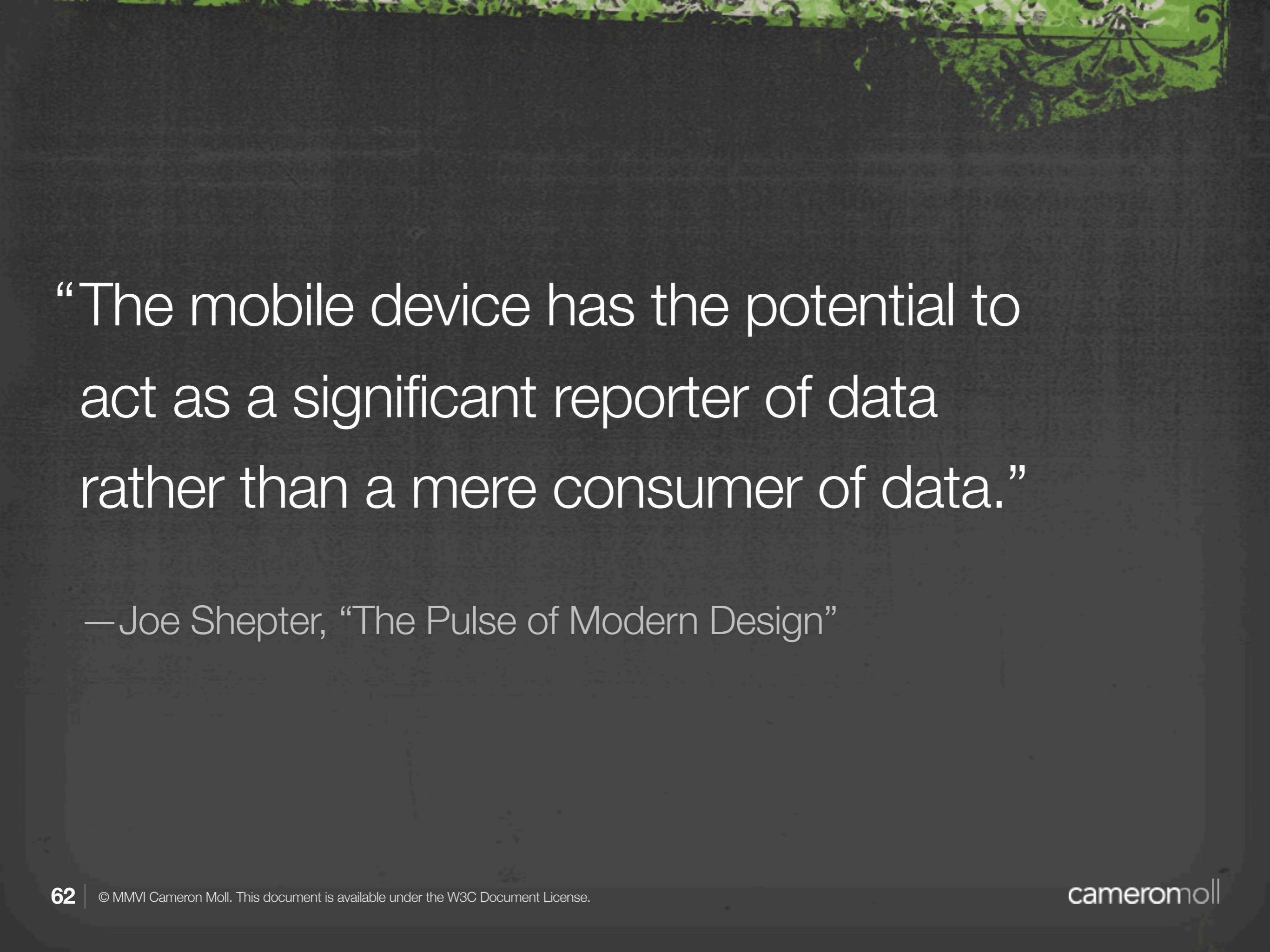
Javascript, XML

SVG

SVG Tiny; scalable vector graphics

LBS

Location-based services; GPS



“The mobile device has the potential to act as a significant reporter of data rather than a mere consumer of data.”

—Joe Shepter, “The Pulse of Modern Design”

ZONETAG™ PHOTOS

- [Install](#)
- [Instructions](#)
- [FAQ](#)
- [My ZoneTag](#)
- [About Us](#)

Take a picture — Instant upload to Flickr with location tags

Try it now! **Explore ZoneTag**

Copyright © 2006 Yahoo! Inc. All rights reserved. [Privacy Policy](#) | [Copyright Notice](#) | [Terms of Service](#) | [Contact Us](#)

ZoneTag Highlights

Tagging made easy
ZoneTag suggests likely tags for each photo, making it easy to add tags from your phone and even easier for you to find the photos later. The suggestions are based on tags made by you and your Flickr contacts in similar context, e.g. in the same location.

Two-click upload to Flickr
Get your photos uploaded to Flickr in merely two clicks. No more searching for your photo to MMS to your friends or copying them to your computer first.

Find your photos by location
ZoneTag can automatically tag your photos with the location, based on the cell tower, in which they were taken. The location of the cell tower is not known until our user community updates the city, state, or zip code of their photos on Flickr.

Real-time privacy controls
You can specify on your phone who sees each photo you upload. You can also choose if you want location tags added to each photo.

Easy setup
Your first photo will be on Flickr in five minutes. We'll take you through our quick and easy setup step-by-step.

DEVICE DETECTION

“Sniff out” user agent strings for individual devices

USER AGENTS

Proprietary vs. Cross-platform?

Beyond mobile phones?



<http://www.tinyurl.com/l2lst>

BEST PRACTICES

...and even “standards”?

MOBILE WEB INITIATIVE

W3C chartered

Input by mobile developers, companies

Best Practices

SAMPLE GUIDELINES

Use valid markup.

Use tables only if supported by target device.

Use text equivalents for non-text elements.

<http://www.w3.org/TR/mobile-bp/>

ALSO...

mobileOK

...remember these?



<http://tinyurl.com/gzdrb>

Best Practices Checker

<http://tinyurl.com/jsrkn>



IDEOLOGY



A mobile web that is
desirable, dependable, disciplined.



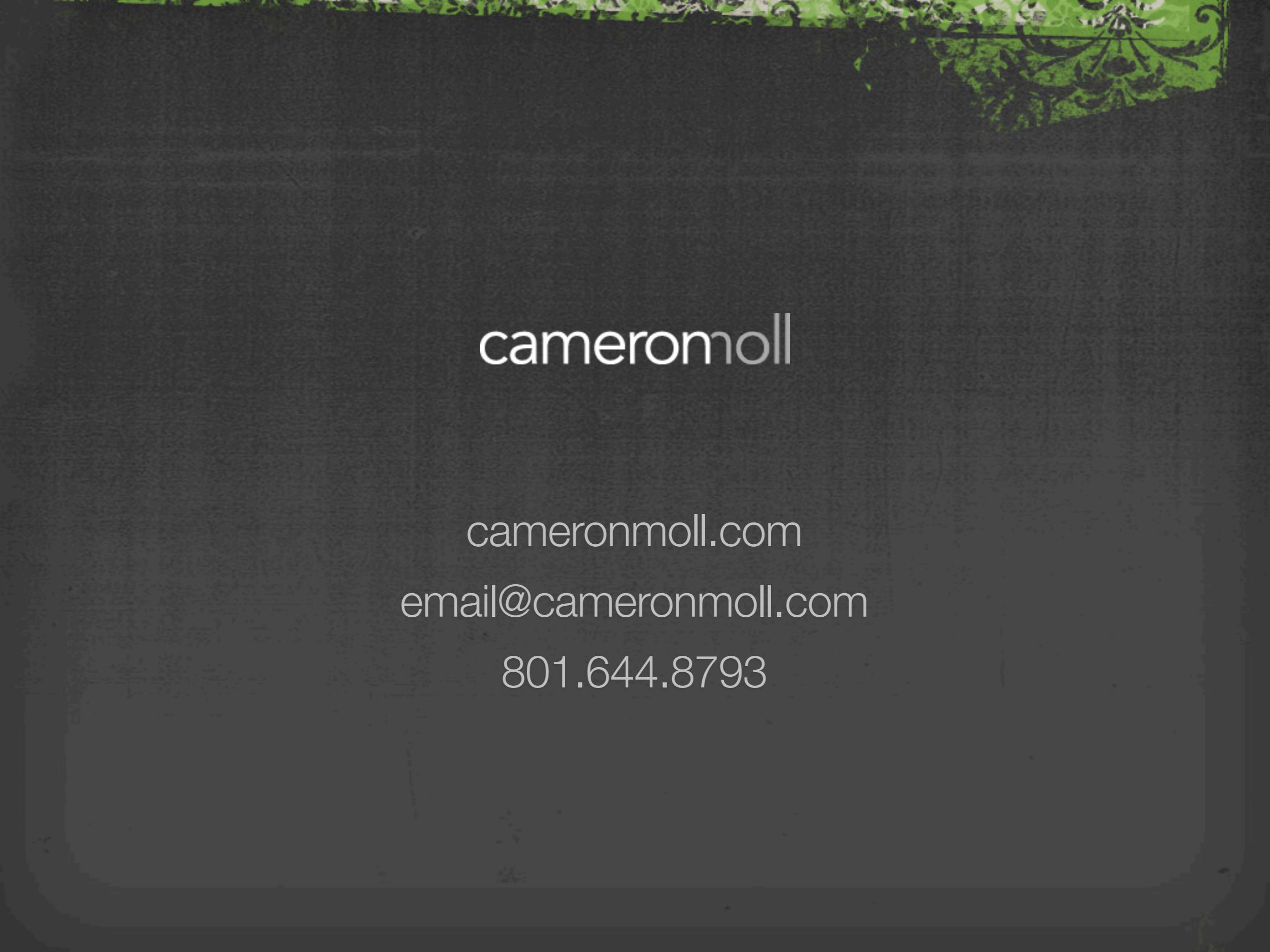
An array of thought leaders.

User agent consistency.

Mobile device wiki.

...and?

QUESTIONS?



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