

Might've heard about this thing called mobile? It's kind of a big deal. It's super-exciting. It's also a GIANT pain in the ass.

All these platforms, devices, screen resolutions. Do we target the web, native apps, some combination? Just when we were getting our head around the web, mobile seems to be blowing it up all over again.

Got suggestions for how to approach it. Suggestions about how might not be thinking right way.

Slightly different slant on it: Design conference, but start with anthropology.



We're all anthropologists.

Anyone who makes product/service is an anthropologist.

To provide solutions for users, have to understand their behaviors, problems, cultures.

As we sling services to more & more connected devices, I've been thinking a lot lately about platforms as cultures.

What makes mobile culture different from desktop culture, an iPhone culture different from an Android culture?



As I've thought about this: realized that we too often have a simple, even condescending view of mobile....

That every mobile user or every mobile platform is same as the next.

We have some really stubborn myths about mobile users, really screwing up the way we provide mobile services.



LOTS of mobile mindsets. These break down: across platform, across demographic, across personal context.

We tend to oversimplify mobile needs, boil them down to really simple use cases,

In doing that we risk building dumbed-down apps that patronize our users more than help.

And worse, making our own work harder over long term.



So let's look at how we REALLY use mobile apps, to consider a better way to approach building them.

I want to dispel six persistent myths that we have about mobile.

(Was going to do five, but then: NEW YORK FRACKIN CITY. If anyone can handle SIX MYTHS OF MOBILE, it's this town.)

Friends are you ready? Let's start with the biggest myth.

[twitter]Mobile isn't just on the go; it's couch, kitchen, bed, the 3-hour layover. Where we use our phones: http://j.mp/hl1dgl[/twitter]

Myth #1: Mobile users are rushed and distracted.



Distracted, in a rush, no attention span.

You hear: information snacking.

Design for little stunted 20 second interactions.

But look.

Mobile not just on go: couch, kitchen, bed, 3-hour layover.

[next]

Or, y'know, in the little boys' or girls' room.

40% admit to using phones in bathroom.

Luke: 60% are liars.

[next]

But this myth leads to kneejerk assumption that mobile means lite version. Logical, right? I mean, rushed users and small screen mean mobile apps should do less.

Here's thing:

85% expect mobile experience to be AT LEAST AS GOOD as desktop.

Our job is not to willy-nilly strip out useful features. Mobile website -> search for "full desktop site"

We do everything on our phones now.

I'm micro-tasking. I'm local. I'm bored.

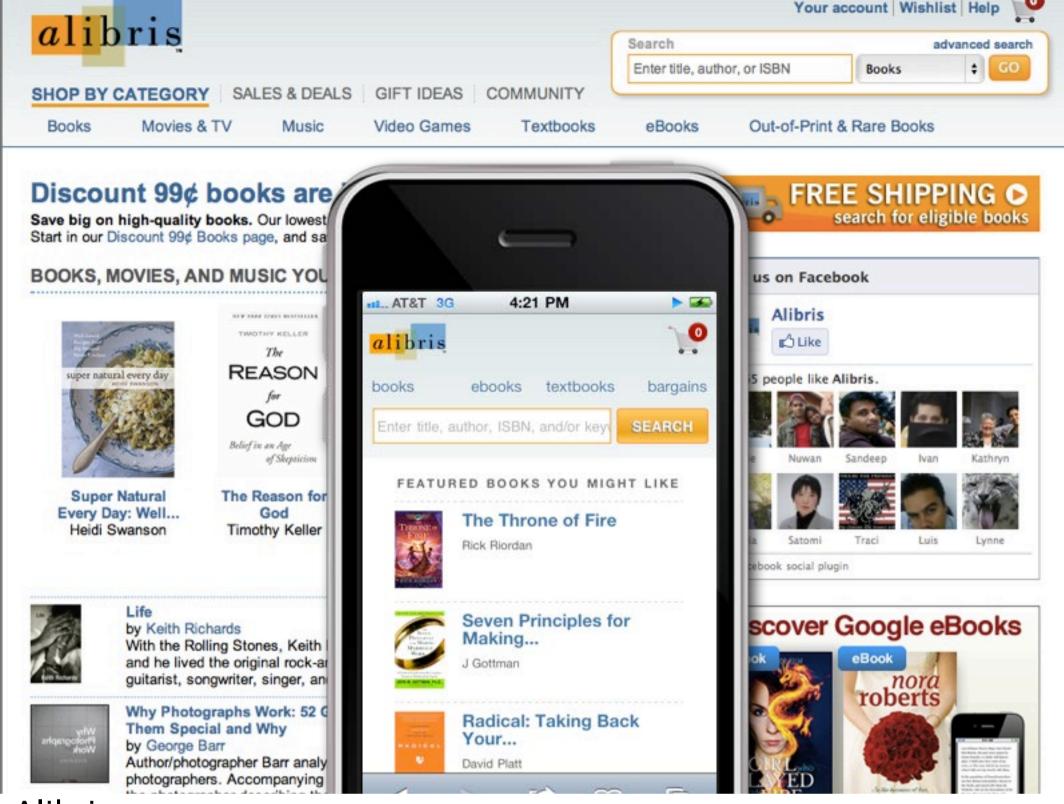


By and large, we launch mobile apps in one of three mindsets. The best apps take into account all of them. These are the mindsets to design for. Just quickly...

It's that last one, "I'm bored" that goes overlooked too often. We pull our phones out for downtime all the time. I'm ready to spend attention.

Design for microtasking, yes, but also design for exploration, help people slow down when they're ready.

We're not always in a rush on our phones. But the assumption that we are leads to all kinds of bad decisions.



Alibris.com

No rare books section.

Head of retail:

such a BIG PURCHASE requires more searching than people would want to do on mobile. Wouldn't want to commit to the purchase on the go.

eBay: several Ferraris/month on their mobile apps.

[slow] Every time you assume someone won't want to do something on mobile, you're wrong. Don't arbitrarily remove content.

This is denying a purchase to mobile users. Not possible to buy a rare book on this site.

But who cares, right? Mobile's still a niche? Get the full site when they get back to desktop. No big deal, right?

[twitter]Retailers' mobile missteps: losing sales by removing

of US mobile web users

exclusively use mobile web

That's around 8% of US adults overall.

So if you care about reaching this huge swath of users, have to care about hitting them on mobile.

Because that's the ONLY way to reach them.
That group DEFINITELY expects to do everything on mobile.

And here's the lesson...

[twitter]25% of US mobile internet users never or rarely use desktop internet. http://j.mp/oZmJoO[/twitter]

Myth #2:

Mobile = Less



Mobile is not less.

As we begin to do everything on our phones, sometimes ONLY on our phones,

mobile content and features should be AT LEAST at the same level as any other platform.

Mobile is not lite. Mobile is not less.

Don't confuse context with intent.



We make too many assumptions from screen size. [slow]You can't confuse context with intent.

Don't limit functionality based on screen size alone. Using small screen ≠ wanting to do less. Like saying that because paperbacks have smaller pages, you have to remove entire chapters.

Mobile websites/apps should have full content/tools May be displayed differently, its hierarchy may change. But core content should all be there.

Don't arbitrarily give me LESS. Simplicity good, but removing too much is condescending. In fact, embrace complexity.

Myth #3: Complexity is a dirty word.



Complexity is awesome, gives life and apps texture. We as designers have to embrace complexity to allow our users to complete difficult tasks and make sense of complex info.

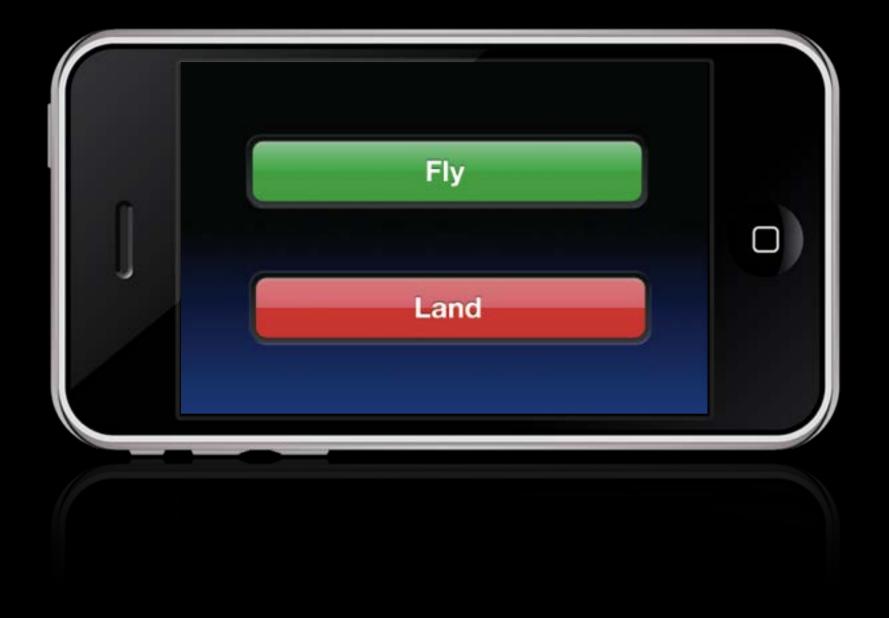
People don't want dumbed down apps, they want uncomplicated apps.
The trick is to make complexity uncomplicated. There's a difference.

So, bucking the myth of the distracted user means figuring out how to create complex yet comprehensible interfaces.



Uncomplicating complexity is hard to do. It starts with figuring out what the user doesnt want/need to be exposed to.

So, if you're designing an app to fly an airplane, you might start here...



...when your customers really want this. What's their goal? Help them get there as fast as they can.



Umbrella: The Simplest Weather Forecast "Will I need an umbrella today?"

I'm the perfect audience for this app.

But look: for some, maybe most, pic of umbrella won't cut it. Weather hugely complex.

Stepfather Ken want to be exposed to all its complexity.

For him, papering over that complexity is a fail. He would find this condescending.

Managing complexity doesn't always or even usually mean stripping out features until the project is toothless. Mobile doesn't mean less, it doesn't mean lite.



Facebook iPhone app v1 started with too few features and users hated it. Without a minimum level of features and complexity, it just wasn't facebook.



Facebook solved the complexity problem by creating the illusion of "sub-apps" with the dashboard grid.



This is the Accuweather.com iPad app, but I'm not sure that it manages complexity in the right way. First of all, scary.

But more important, jammed with information. More than you need at any given time. Don't make me scan all this data for what I'm looking for. Instead, let me ask for it as I need it.

Manage complexity not by presenting it all at once, but by managing it through give and take.



Accuweather.com.

Actually does a better job with complex information in small screen of iPhone app instead of iPad app.

Dense info for the current moment

[next]

Oh baby... yeah... Now we're talking. Ken's in hog heaven. I've got dew point, I've got humidity, barometric pressure.

Nice start:

But how to provide all of the day's detailed info?



Swipe at current conditions to move into future. [next]

Detailed conditions for 7am, and temps for later. I ask app about 10am... by touching 10am! Only when I ask for that info does it give it to me. Question, answer. Ask, receive.

Requires more taps than just dumping all the data on you directly. But each screen more digestible.

[slow] In a mobile interface, clarity trumps density.

And that gives the lie to the fourth myth.

Myth #4: Extra taps and clicks are evil



The web has given us a squeamishness about extra clicks.

[slow]

In mobile: tap quality far important than tap quantity.

As long as each tap delivers satisfaction (example), extra taps are ok. ARE GOOD.

It invites conversation, give and take that you can get at and explore.



Again, you don't need to pour it all in at once.

Momento:

Great micro-journal, record moments of the day. Twittering to yourself.

Can attach things to your moment Icon for each.

But doesn't leave much room for your moment!

Main event is content but crowded out. Small buttons, hard on eyes and fingers. Common problem for many Twitter apps



Focused entirely on single task, dedicated to post. Secondary tools behind a secret panel.

Trouble with secret panels is that they have to be discoverable. Latch hidden in plain sight.

In recent releases, added animation hint.

Optimize each screen for the primary task. Secondary tools and controls behind hidden doors and secret panels.

Clarity trumps density.

Tap quality trumps tap quantity.

Mobile ≠ Less

Again, the idea is not to arbitrarily strip out features and content. It's a matter of organizing and prioritizing them.

In fact, rather than thinking that mobile means less...

Mobile = More



The real question is: how can I do more?
These devices can DO MORE than a desktop.
They have a camera, microphone, GPS, gyroscope, touch.
What are the opportunities for subtle insights, new features?
Gives your app or website superpowers.

Stop thinking about mobile CONTENT.

Stop thinking about what people WON'T want on mobile.

You'll be wrong.

Instead of mobile content: mobile devices, mobile capabilities. What can you DO with that content?

Start with a basic website, use feature sniffing to layer on mobile-only tools. Touch interactions, location information, the camera. Progressive enhancement for superpowered devices.

Progressive enhancement of a single webpage for all devices. That brings us to the fifth myth.

Myth #5: Gotta have a mobile website



Look, you DO need your website to look great on all devices. Desktop, phones, tablets.

And voice... how does your website SOUND?

And soon: TVs... devices we haven't even imagined yet.

So yes, you do need great mobile EXPERIENCES. But not a separate website.

There is no mobile web.



Serve same fundamental content/features to all devices, but enhanced to suit specific devices.

Means we can't think of different websites for different devices. The mobile web is not some independent thing.

Back in Jan, Stephen Hay wrote a wonderful article titled "there is no mobile web," and I recommend it to all of you.

[slow]

Don't think in terms of a mobile website.

Instead: How is this single website EXPERIENCED on mobile devices?

Web experiences, not individual web sites.

[twitter]There is no mobile web.—@stephenhay http://j.mp/moBVcF[/twitter]

mobile.mysite.com



And no matter what, if I visit your website here...

...but I get bumped over here...

You're probably doing it wrong.

The same URL for the same content, or at least thematically similar content, across all devices.

With appropriate shifts in presentation and capablities.

One web



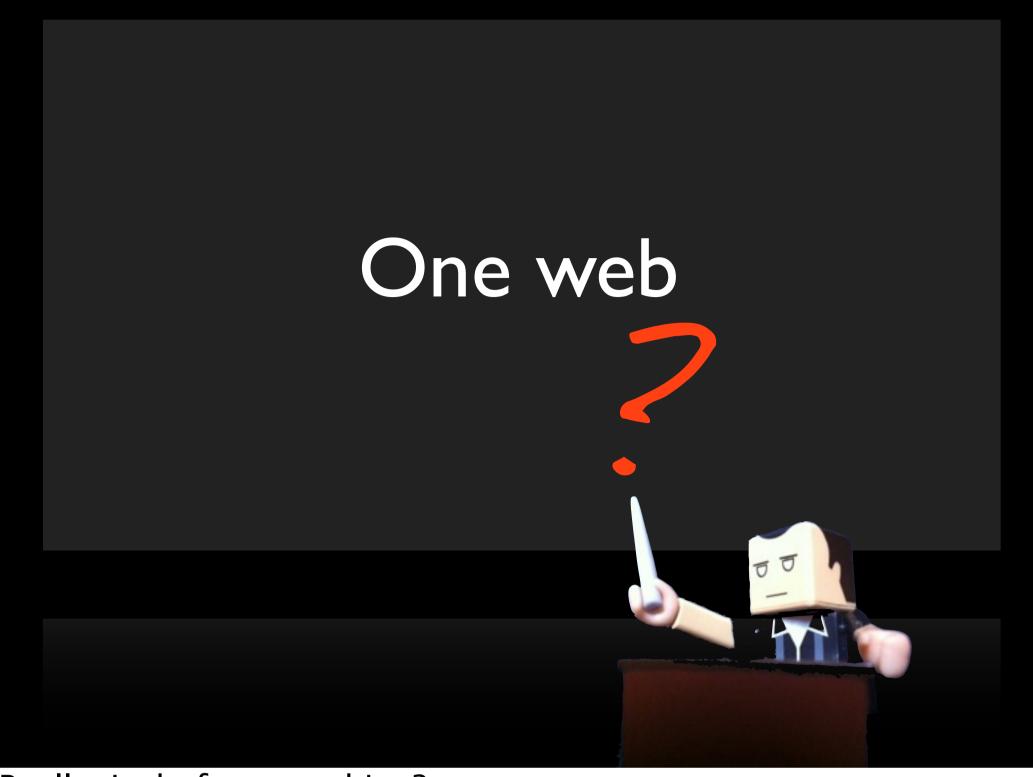
This is the one-web idea.

Not about the user's context in other words, (Will they want this on mobile?) but the device context:
What can device DO
How can the device enhance the experience?

Build by thinking about progressive enhancement.

Serve a single html page to all devices, use media queries to design for common formats.

JS feature sniffing to layer on new functionality: GPS, touch, voice, eventually camera accessibility, you name it.



Really, Josh, for everything? Well, don't be dogmatic. As always, it depends.

Makes tons of sense for a content site, like the awesome bostonglobe.com.

But may need to have separate html for more feature-driven sites, at least for certain broad classes of devices. Be flexible.

And there are some cases, but they're rare, when mobile content is really different from desktop content.

When you might build entirely separate app for mobile, tuned to mobile's special features of location, portability.

Few universal laws in design. Use good judgment.

[twitter]Responsive design or separate mobile website? It depends. http://j.mp/hNA9UH #ffly[/twitter]



Not going to go into all the hows and whys. Instead, I'll point you to a terrific book.

The result: a site whose content/features available on all browsers. Typically, with a site that is most fully featured on mobile devices, but with media tuned for lower bandwidth.

[twitter]You've read Ethan's book, right? "Responsive Web Design" by @beep. http://j.mp/k7yC0D[/twitter]

Edit, Edit, Edit



So: thematically similar content and features across all devices.

But shouldn't just throw the kitchen sink in there, and put each and every thing in your mobile app.

First, it's hard.

Hard to elegantly fit lots of features into small screen. Business of uncomplicating complexity isn't easy.

But more important, all those content and features may not be so important in the first place.

So wait? This sounds contradictory, right? Mobile should do everything, but it shouldn't do everything?

Here's what I mean:

Your mobile site should probably have less stuff than your desktop site has now.

Not because it's mobile,

but because your desktop site is full of crap.

Mobile first



Luke W's mobile first mantra. Start with small screen, use its constraints to create a filter to help decide: man, can we really fit this stuff in there? is it worth it?

Start with mobile and then move to desktop after you've already done that hard work of figuring out whether it's really important to your users.

Be discerning.

In some cases, it may not be just mobile first...

[twitter]And you've ready @lukew's book, too, yeah? Mobile First: http://j.mp/pZfLKe[/twitter]

Mobile only



It might be mobile only.
Features that apply only to mobile devices and their unique super powers of sensors, location, and portability.

So this is getting kind of complicated, right? Might mobile-only features desktop can't support. Might have content that's useful but not top priority in mobile.

This is hard work. We have tons of different platforms and contexts now.



Mobile, not mobile, one web or separate web sites. Platforms: iPhone, iPad, web, desktop apps, Android, SMS. But also: print, television, voice, all the traditional media. ALL THESE PLATFORMS AND CULTURES.

Thrilling but overwhelming time for all of us right now. Avalanche. We've been taking them head-on, one at a time. Android, iPad, Windows Phone, mobile website.

This seems a little scary right now, right? Friends, just beginning. It's only going to get worse.

More and more screens of all sizes.

Devices whose form just won't fit our print designs.

Devices without screens at all. How do we prepare for THAT?

Step back from that whirlwind for a moment, stop thinking so much about individual platforms, Stop focusing so much on APPS or WEBSITES.

To deliver rich, complex experiences to all these contexts, you have to start with your CONTENT.



Look across the entire range of devices and interfaces, and seek out the commonalities.

What's range of service you want to offer.

[next]

Floating above all these cultures, tying them together, is you, your company, your goals, your service. And that's embodied digitally by your API.



THIS is the real winner.

Not web apps or native apps or 1 platform.

Nig boy in the room is thinking about your interfaces as spectrum of apps that plug into single wellspring of service.

Build common back end that can serve all these interfaces, lets you turn and pivot to each culture, to each technology, to each device.

Not mobile first, not desktop first. Content and API first.

Myth #6: Mobile is about apps



So this is the sixth myth, and it's a big one. Apps, apps, apps, apps, apps.

At any moment, we tend to focus on a single container: an app, a mobile website

That's what's got us running in panic now, right? Gotta have an app! Gotta get on tablets. Gotta have that mobile website!

[slow] But an app is not a strategy. It's just an app.

Your product is not a mobile app



See, your product isn't really a product at all. [next]

Your product is something called content. It's a service.

The rest are all just containers.

Stop focusing so much on APPS.

Not sustainable. Won't keep up.

Can't start from scratch and design every pixel for EVERY point content touches reader.

Pull back from obsession w/presentation. Have to start w/CONTENT. Have to accept that your content will take many forms.



I'll turn now to the famous content strategist and UX designer Bruce Lee.

"You put water into a cup, it becomes the cup.

You put water into a bottle, it becomes the bottle.

You put it in a teapot, it becomes the teapot."

[twitter]Content like water: design flexible content to flow anywhere. "Put water into a cup, it becomes the cup"—Content strategist Bruce Lee[/twitter]

Content like water

"Empty your mind. Be formless, shapeless, like water."



Content like water. Content's going to take many forms, flow into many different containers, many of which we haven't even imagined yet.

Jeremy:

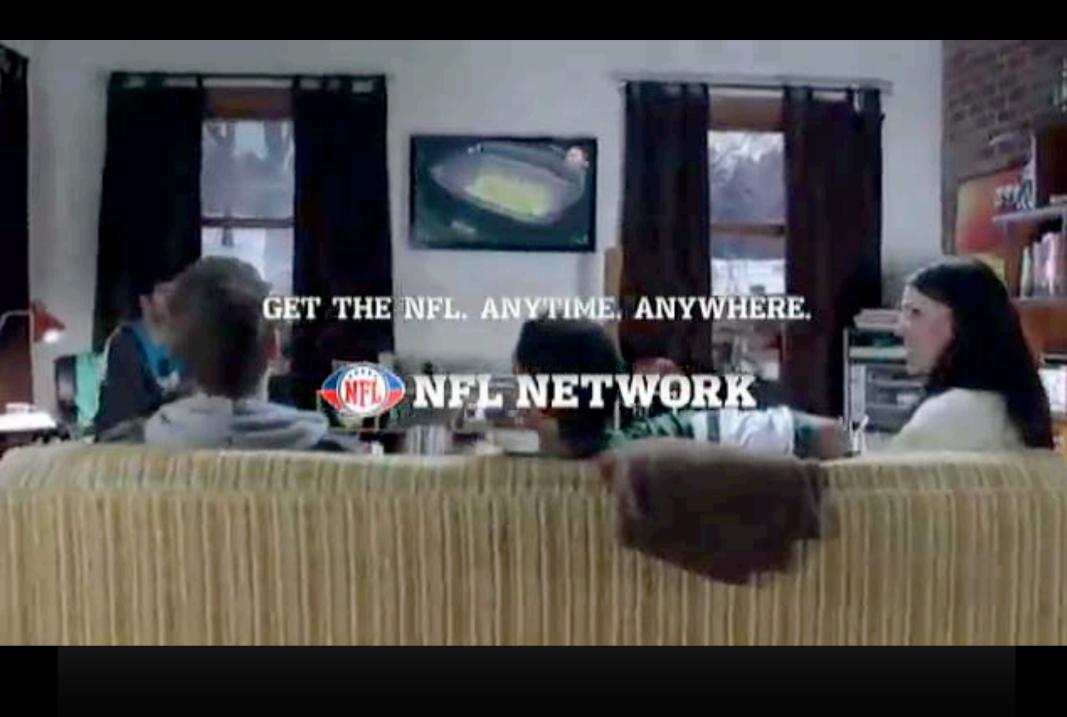
Build from the content out. Not from the container in.

Build common back end to serve ANY interface. Stop thinking app, start thinking flexible content.

Came out of 90s with data locked up in legacy systems. Now turning out of early web era with data locked up in web CMS. Content that's stored as HTML. Big unstructured blobs of data.

CMS has to be agnostic about these platform machinations. Need clean content repositories to deliver more neutrally formatted content to be displayed on ANY device.

And man we have a lot of them.



There's a growing mainstream expectation that you can simply get all your content from any device.

We expect content to flow seamlessly, follow us throughout the day.

This ad for NFL.com, crisp illustration of that shift. [play]

We access the same content across multiple devices. Phones, PCs, tablets, X-boxes, tv boxes

Kindle and Netflix

That expectation is going to spread to even the most modest apps. I want my stuff everywhere.

[twitter]NFL.com knows content flows like water in an era of connected devices. http://j.mp/nkrn7f[/twitter]



And this expectation is only going to grow as it gets cooked into popular platforms.

Like this one, for example.

[twitter]Apple's iCloud pushes content-like-water expectations into the mainstream. http://j.mp/sFKeru[/twitter]



We're all cloud developers.

That means we're all cloud developers. I don't care how you build it—native app or web app or both:

[slow]

just about every app should be a web client of some kind.

Future: many thin clients talking to smart web services. Clients should all be tailored to individual devices. But they'll all be web clients, talking to the cloud.

Doesn't matter if cloud accessed via browser or native app. They're all talking to the web.

(Native apps = custom browsers.)

Have to do thoughtful design of back end services that will power all these devices.

EVEN DEVICES WE HAVEN'T IMAGINED YET.



Can't know the future, so can't be future-proof. But we CAN be future-friendly.

Future Friendly: resource for big-picture considerations for managing, escaping this app-centric thinking.

Biggest lesson there, strange for a designer to say: don't try to control form of your content in each and every context.

You won't be able to keep up. You can't scale. Old lesson of web. Separation of content/prez. Same applies for other platforms. Apps, print, voice,

Build APIs that can send content to any platform/device. Hood business sense—will create value, save money—

but as I'll describe in a bit, will give designers more creative control, too. Seriously.

First, though...



So what does this look like in practice? A lot of newspapers are already moving in this direction. Turns out news orgs good at this: structured data.

Surprising: Hard to look at newspapers and not think, they're screwed. From biz perspective, it's hard. How to make \$\$?

Future # protecting old models. Experimenting with new ones. Unbundling content, setting it free from a fixed presentation.

There are a few leaders we can all take lessons from, even if you're outside news industry.

[next] The Guardian's Open Platform. Real leader here.

Articles, pictures, videos, data sets, visualizations. Build your own newspaper. Encouraging experimentation to create new ways to package news.

[next] USA Today's API.

Available for past year for personal/noncommercial use. Just opened for commercial use. Movie reviews, articles, census data.

[next] NY Times: bestseller lists, campaign finance data, article search All these available for public use. Anybody can get at this. But some of the best possibility is when you consume it yourself.

[next] NPR has a central API that powers all of its services. Website, member station feeds, iPhone app, iPad app, news feeds...

By having shared, consistent, structured content repository, NPR is able to move extremely quickly to deploy new apps They just build these thin clients to ask for content and display them in device-appropriate ways.

It's not a newspaper. It's a platform.



[slow] It's not a newspaper. It's a platform.
That's the idea behind what these news orgs are doing.
"We want to be OF the web, not just ON the web."

You don't have a product, or an app. You have a service. That's how to build for mobile, but not only mobile... for the future generally. BE KIND TO YOURSELF. BE FUTURE FRIENDLY.

But ugh, Josh. Seriously? API, Structured content, CMS? BORING.

Duh, don't you know you're talking to designers? This isn't our problem, right? This is for the database nerds to figure out, right?

I'm glad you asked. Myth seven.

[twitter]"COPE: Create Once, Publish Everywhere." How NPR created nimble digital operation w/ savvy CMS'ing: http://j.mp/rcYeBz

Myth #7: Content & API are for database nerds.



This stuff is not for database nerds.

Designers, managers, content producers, we all have to care about this, too. Not just care, but get involved.

It will make all of us better at our jobs if we start caring about content design, workflow, storage, transport.

Because what I'm talking about is: HOW TO MAINTAIN SOME CREATIVE CONTROL with mobile.

"Metadata is the new art direction."

Ethan Resnick @studip101



This is a quote from an extremely bright 18-year old designer Ethan Resnick, @studip101

What he means: structure your content well, you'll get a foothold of creative control in this chaotic world of connected devices.

You'll have the hooks and flexibility you need to:

- -- put content where you want it,
- -- style it how you want it,
- -- in ways that are appropriate to the device.

Friends, THAT's creative control. Creatively craft your content to fit the current context, no matter what device someone is using.

That means we have to start driving our design down the stack, into the content itself.

Look, visual design is as important as ever. It is.

Can't do hand-crafted custom art direction for every platform. Can't design every iPad screen by hand, portrait/landscape. Doesn't scale, and there aren't enough of us.

So have to focus on designing/enhancing content w/metadata.





Newspaper layout = editorial judgment.
Placement/size of articles provides semantic meaning.
Primary, secondary, tertiary tiers. [point out]

[slow] THERE IS CONTENT IN DESIGN CHOICES. So: how do we cook design choices into content, so that editorial judgment can transition platforms?

[next] Experience reminds of print, but very iPad. Box-like presentation of Flipboard. Works. NOT JUST A LIST OF ARTICLES. Layout/size reflects choices of editors from print. [show]

How? THEY AUTOMATE IT.

Script reads original indesign files where print issue designed. Reads size & placement of each article, encodes that into metadata of the content API.

Give the robots metadata for editorial priority, based on judgment of Guardian's editors. iPad app uses that info to make device-appropriate decisions for how to place articles in app.



Guardian app is not a one-to-one clone, which too many magazines do with their iPad apps. Strain to keep literal design consistent across platforms. iPad app looks just like print app, relies on print.

WHY?

You tell me: is print winner looking out 10 years from now? Why should print's conventions dictate what happens on other platforms?

Print is just another platform, and over time, a more and more minor one. No platform should have primacy. Not print, not desktop, not tablet.

Repurpose design



It's not the DESIGN that you want to repurpose. [next]
It's the content. It's the editorial sensibility.

The goal is not to translate literal visual design, It's to transfer content and meaning. That's what Guardian does, very smart multiplatform strategy.

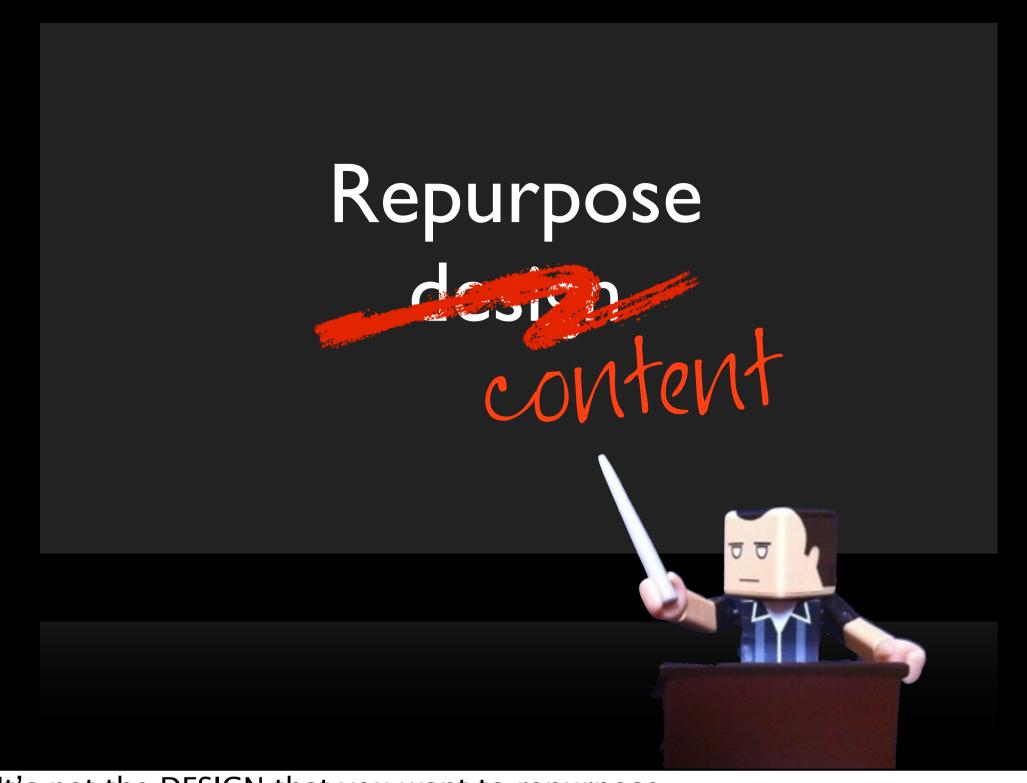
Cooks editorial information into metadata of the content, but without shoehorning print's design conventions into iPad.

WE DON'T DESIGN PIXELS, WE DESIGN CONTENT.

The real win... for business value, for creative control, for empowering readers,

is to create content strategies and design strategies that are not tied to any single presentation.

Because it's not your app strategy, or your desktop strategy,



It's not the DESIGN that you want to repurpose. [next]
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Because it's not your app strategy, or your desktop strategy,

lt's just plain strategy.



Who are you to your customers?
What do you do for them?
How can you embody that digitally
and provide that service or information wherever they might need
it?

This may seem really scary right now. No way to keep up with all of these devices and platforms. But this is only the beginning.

So we have to stop thinking so rigidly about these separate independent channels. Start thinking of them as a spectrum across which our content flows seamlessly.

There's no single mobile context or culture, no single mobile platform.

[slow] We as consumers know this. So let's be sure we do the same as designers.

- √ Mobile ≠ rushed
- √ Mobile ≠ less
- √ Complex ≠ complicated
- √ Tap quality > tap quantity
- √ Focus for ALL platforms
- √ No such thing as mobile web
- ✓ Don't think app; think service
- ✓ Metadata is the new art direction



All right. So what have we done here.



I love you guys, I do. So let me wrap up by saying this, gently:

Our jobs are getting harder.

We're designing for a jillion platforms.

We are inundated by screens, a rain of little glowing rectangles.

That's not going to change, so we can't sweat it. This is simply the environment we work in now. So accept it, understand it, know that we have to give up some control.

Het rid of stubborn myths about how we consume content in era of connected devices. And then, man, with that knowledge in hand: let's go kick some ass.

This is EXCITING.

New platforms don't come around very often, but We're in a window where they're flourishing everywhere. And we're the ones — here in this room — who get to figure out how this works.

Seriously: we have the coolest job in the world. At one of most exciting times in history of technology, and for that matter of culture, too.