Responsive Principles
A Framework for Future Learning

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What principles do you live by?
Living sustainably
Software, like all technologies, is inherently political... code inevitably reflects the choices, biases, and desires of its creators.

Jamais Cascio
wfs.org/node/840
Technology is neither good nor bad; nor is it neutral.

Kranzberg’s First Law of Technology
en.wikipedia.org/wiki/Melvin_Kranzberg
Fluid grids
+ Flexible images
+ Media queries
= Responsive web design
The next five years
"A framework not about execution, but about philosophy and quality."

Ethan Marcotte: Laziness in the Time of Responsive Design
vimeo.com/channels/cssday/106869929
Ten things we know to be true:

1. **Focus on the user and their problems**
   Since the beginning, we’ve focused on what people want to do on our own internal goal or forum pages load instantly. Placement is not only clearly marked as such, but it’s our navigation system, and when we build new tools and apps, we have to consider how they might work on mobile devices.

2. **It’s best to do one thing at a time**
   When we do search, we do it with one of the most powerful search engines. We’ve been doing search right away, and until now, “we” have been an error.

3. **Fast is better than slow**
   We know your time is valuable, and we try to keep our page load time to a minimum.

4. **Start with needs**
   The needs of the user are always the first thing we focus on.

5. **Do less**
   We believe in simplicity and keeping our products and services as simple as possible.

6. **Design with data**
   We use data to inform our design decisions and ensure that our products are effective.

7. **Do the hard work to make it simple**
   We strive to make complex concepts easy to understand and use.

8. **Iterate. Then iterate again.**
   We believe in continuous improvement and being open to feedback.

9. **This is for everyone**
   Our products are designed to be accessible to everyone, regardless of their background or abilities.

10. **Understand context**
    We take into account the context in which our products are used.

11. **Build digital services, not websites**
    We focus on creating services that are useful and usable.

12. **Be consistent, not uniform**
    While we strive for consistency in our design, we do not enforce uniformity.

13. **Make things open; it makes things better**
    We believe in open source and sharing our work with others.

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**Government Digital Service**

**Design Principles**

Listed below are our design principles and examples of how we’ve used them so far. These build on, and add to, our original 10 digital principles.

1. **Start with needs**
2. **Do less**
3. **Design with data**
4. **Do the hard work to make it simple**
5. **Iterate. Then iterate again.**
6. **This is for everyone**
7. **Understand context**
8. **Build digital services, not websites**
9. **Be consistent, not uniform**
10. **Make things open; it makes things better**

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**Design Principles**

google.com/about/company/philosophy/  gov.uk/design-principles
Design principles are short, insightful phrases that act as guiding lights and support the development of great product experiences. Design principles enable you to be true to your users and true to your strategy over the long term.

Kate Rutter: Making Design Principles Stick
adaptivepath.org/ideas/essays/archives/001123.php
The primary design principle underlying the Web’s usefulness and growth is universality... it should be accessible from any kind of hardware that can connect to the Internet: stationary or mobile, small screen or large.

Tim Berners-Lee: Long Live the Web
scientificamerican.com/article/long-live-the-web/
Three principles that address the nature of the **medium**, the needs of its **users** and the desires of those that build for it, **us**.
Users

The web is accessed by a broad spectrum of individuals, expressed by the devices they use.
The Verge, as experienced over an average 3G connection

webpagetest.org/result/150915_C3_1D4N/
Universal Design

1. Equitable Use
2. Flexibility in Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use
OXO Good Grips Vegetable Peeler
smartdesignworldwide.com/work/oxo-good-grips/
When all users’ needs are taken into consideration in the initial design process, the result is a product that can be used by the broadest spectrum of users.
Equivalent textual alternative for an image resource:

<img src="charles-bridge.jpg" alt="Charles Bridge in Prague"/>

Fallback content for browsers that don’t support <video>:

<video controls poster="prague-placeholder.jpg">
  <source src="/videos/prague.ogv" type="video/ogg"/>
  <source src="/videos/prague.mp4" type="video/mp4"/>
  <a href="/videos/prague.mp4">Download this video</a>
</video>
In case of conflict, **consider users over authors** over implementors over specifiers over theoretical purity.
Empathy gap
Rather than a faceless person typing away on a keyboard, **users become people** with names who want to use what you are helping to create.

Susan Robertson: Developing Empathy
alistapart.com/blog/post/developing-empathy
Example

Universal Personas

Olivia

- 33 years old
- Lives in a her newly-purchased one-bedroom apartment in Woolwich
- Works in finance on a comfortable salary (70k) in Canary Wharf
- In a relationship but not currently cohabiting
- Technology: Proudly Apple. Owns a MacBook Air and an iPhone 6 that she purchased for personal use.
Peter
...recently had a skiing accident, and broke his wrist

Reduced motor ability

Olivia
...often uses her phone when walking to work

Poor eyesight

Sanjita
...has two children who play musical instruments

Hearing loss
The best way to understand the audiences we design for is to know those audiences. And the best way to know people is to have them, with all their differences of perspective and background – and, yes, age and gender and race and language, too – right alongside us.

Sara Wachter-Boettcher: Universal Design IRL
alistapart.com/article/universal-design-irl
1 Reflect the diversity of users in our practice

By building inclusive teams that listen to – and even work alongside – users, we can achieve wider reach.
The medium

The web is a fluid and unpredictable medium.
Different perspectives
“Losing 80% of your screen space forces you to focus. There simply isn’t room for any interface debris or content of questionable value. You need to know what matters most.”

Luke Wroblewski: Mobile First Helps with Big Issues
lukew.com/ff/entry.asp?1117
Interface
Network
Content
In order to embrace designing native layouts for the web – whatever the device – we need to shed the notion that we create layouts from a canvas in. We need to flip it on its head, and create layouts from the content out.

Mark Boulton: A Richer Canvas
markboulton.co.uk/journal/a-richer-canvas
You can create good experiences without knowing the content. **What you can’t do is create good experiences without knowing your content structure.**

Mark Boulton: Structure First. Content Always.
markboulton.co.uk/journal/structure-first-content-always
The Core Model: Designing Inside Out for Better Results

alistapart.com/article/the-core-model-designing-inside-out-for-better-results
There’s only one type of content that can be viewed on virtually any web-enabled device, and that is plain text, or rather, plain text that’s been structured with HTML.

Stephen Hay
Responsive Design Workflow
Far From The Madding Crowd, film review: Carey Mulligan’s Bathsheba would fit in better in The Hunger Games

★★★★☆☆☆

Thomas Vinterberg’s take on Thomas Hardy’s novel is only vivid when Mulligan is onscreen.

Far From The Madding Crowd may be set in late 1860s “Wessex” but one of the fascinations of Thomas Vinterberg’s new adaptation of the Thomas Hardy novel is the light it casts on our own preoccupations. The publicity hasn’t been slow to remind us that the story’s protagonist, Bathsheba Everdene (Carey Mulligan), inspired the Hunger Games’ author Suzanne Collins to make her heroine Katniss into an ‘Everdeen’ as well.
<div class="rating">
    <img src="star_whole.png" alt="Star number 1"/>
    <img src="star_whole.png" alt="Star number 2"/>
    <img src="star_whole.png" alt="Star number 3"/>
    <img src="star_empty.png" alt="Star number 4"/>
    <img src="star_empty.png" alt="Star number 5"/>
</div>
“How is this movie rated?”

```
<div class="rating">
    <p>This movie is rated 3 out of 5 stars.</p>
</div>
```
“How is this movie rated?”

This movie is rated 3 out of 5 stars.
2 Start from a point of greatest adaptability

By making fewer assumptions about context and interface, focusing more on users’ tasks and goals, we can create more adaptable products.
The web is built upon complex and interwoven technologies.
Cross-functional teams
Sharing the toolbox
Style guides for Lonely Planet and Yelp
styleguides.io/examples.html
Hello! I'm going to set up this machine for you. It might take me a bit of time before I'm done, but you'll end up with a happy machine by the end of it.

Ready to get started? Brutalize a key with your favorite finger.
A shared language
SCSS input

```
.element {
  @include fs-header(1);
}
```

Compiled output:

```
.element {
  font-size: 16px;
  line-height: 20px;
  font-family: "Guardian Egyptian Headline", Georgia, serif;
  font-weight: 900;
}
```

github.com/guardian/guss
Glorious Gothenburg: a tale of reinvention / Locals' guide to the city

Gothenburg has reinvented itself to show off the best of cutting-edge Swedish design, food and music. In our latest guide to Europe's alternative cities local creatives reveal their favourite spots

The Guardian: GUSS
github.com/guardian/guss
Common conventions
.block
Encapsulates a standalone entity that’s meaningful on its own.

.block__element
Parts of a block and have no standalone meaning.

.block--modifier
Flags on blocks or elements, used to change appearance, behaviour or state.
<table>
<thead>
<tr>
<th>Object</th>
<th>Component</th>
<th>Utility</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reusable object that provides a structural repeated aspect of UI</td>
<td>A concrete, implementation-specific piece of UI</td>
<td>Class that has a very specific role, and often a single responsibility</td>
<td>Component containing HTML styled using elements selectors</td>
</tr>
</tbody>
</table>

Harry Roberts: More Transparent UI Code with Namespaces

csswizardry.com/2015/03/more-transparent-ui-code-with-namespaces/
/* Utility: Clear floats */
.u-clearfix { ... }
.u-hidden { ... }

/* Object: OCSS ‘Media’ */
.o-media { ... }
.o-media__image { ... }

/* Component: Navigation */
.c-nav { ... }

/* Component: Navigation list */
.c-nav-list { ... }
.c-nav-list__item { ... }
.c-nav-list__label { ... }

/* Scope: HTML within prose */
.s-prose h1 { ... }
.s-prose h2 { ... }
.s-prose p + h2 { ... }
.s-prose ul > li { ... }
### Make commands

**make install**  
Install project dependencies

→ *Project 1 (Ruby):*  `bundle install`

→ *Project 2 (Node):*  `npm install`

**make build**  
Run build steps

**make test**  
Run unit tests, linting and other tests

**make run**  
Run the application locally

**make deploy**  
Deploy the application to environment

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[financial-times.github.io/next/docs/developer-guide/#make](financial-times.github.io/next/docs/developer-guide/#make)
3
Build systems that humans understand

Choose tools that are approachable, simple to use and open to change so as to elicit greater collaboration.
1. Reflect the diversity of users in our practice
2. Start from a point of greatest adaptability
3. Build systems that humans understand
Strong opinions, loosely held
prllloyd.com/
responsive-principles
#RWDPrinciples
Thank-you!

Děkuji!