Designing the Conversation

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```
I’m <em>really</em> happy to see you.
```

Powerful Phrases

Emphasis

```
I’m <em>really</em> happy to see you.
```

Strong Importance

```
Please fill out the form below to contact us.
<strong>All fields are required.</strong>
```

I’m *really* happy to see you.

Please fill out the form below to contact us. **All fields are required.**

Alternate Voice or Mood

```
It's a terrible movie and it made $200 million.
<i>Go figure!</i>

She is admired for her energy and <i lang="fr">joie de
vivre</i>.
```

Stylistically Offset

For 12 years and running, over 100,000 companies have adopted the Basecamp way of working. Not just tried, but signed up, said “ah-ha!”, and never looked back. There’s nothing else like Basecamp.

Published Works

I wrote the book <cite>Adaptive Web Design</cite>. If you like this talk, you'll find in-depth information about semantics (and a whole lot more) in there.

Abbreviations & Acronyms

```
A ramp embedded in staircase of Robson Square in Vancouver,
<abbr aria-label="British Columbia">BC</abbr>.
```

Keyboard & Code

Press <kbd>Tab</kbd> to move from link to link within a document.

The <code>kbd</code> element is used to indicate keyboard key names.

Generic Phrasing

```
There is <span>nothing particularly interesting</span> in this
sentence.
```

Mindful Links

Connecting Content

```
A ramp embedded in staircase of <a href="https://
en.wikipedia.org/wiki/Robson_Square">Robson Square</a> in
Vancouver, <abbr aria-label="British Columbia">BC</abbr>.
```

Connecting Content

```
<a href="…"><b class="hidden">You can </b>finish reading<b
class="hidden"> <cite>The Web Should Just Work for Everyone</
cite> in less than 10 minutes</b></a>
```

Connecting Content

```
To illustrate the concept of layering styles, perhaps it’s best
to start at the beginning: with no style applied.
<a href="#figure-3-3">Figure 3.3</a> shows the lodging article
in Safari with only the default browser styles applied.

…

<figure id="figure-3-3">
  …
</figure>
```

Creating Context

```
<a rel="bookmark" href="…"><b class="hidden">You can </b>finish
reading<b class="hidden"> <cite>The Web Should Just Work for
Everyone</cite> in less than 10 minutes</b></a>
```

Creating Context

```
<a href="…" hreflang="es"><b class="hidden">Lea esta página en
  </b>Español</a>
```

Creating Context

```
<a href="giant.mp4" type="video/mp4">Download this movie</a>
```

Triggering Actions

```
<a href="giant.mp4" type="video/mp4" download>Download this
  movie</a>
```

Connecting Tools

```
<a href="mailto:aaron@easy-designs.net">Send me an email</a>

<a href="tel:18009346489">Call Comcast Customer Service</a>
```

III

Effective Organization

US OPEN.org
US OPEN.org

Associated Press

Book Is Inside Look at War on Terror

By PETE YOST 09.07.07, 3:25 PM ET

Popular Videos
- TV Marketing Mania
- Tennis Suits Heineken
- The Business Behind BCBG
- Cashing In On The Club Scene
- Driving Light: The BMW 550i Sedan

Most Popular Stories
- Your Toughest Sale: Your Own Kids
- Returning Workers' Brains Still On Vacation
- The Most Expensive Blocks In The U.S.
- 2007 Mutual Fund Survey

WASHINGTON -Vice President Dick Cheney and other Bush administration officials "blew through" legal constraints they didn't like and weakened the presidency with a go-it-alone approach in the war on terror, a former Justice Department official writes in a new book.

In "The Terror Presidency," former assistant attorney general Jack Goldsmith details what he calls "one of the underappreciated stories in the war on terrorism: the daily clash inside the Bush administration between fear of another attack - which drives officials into doing whatever they can to prevent it - and the countervailing fear of violating the law, which checks their urge toward prevention."

Goldsmith rescinded two legal memos written by attorneys who previously ran the Office of Legal Counsel, which he

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Small Business Attaché

Headings

```
<h1>This is the title of the page</h1>
…
<h2>This titles a section</h2>
…
<h3>This titles a subsection</h3>
…
etc.
```

Moving Focus

```
<p>This twist is what <a href="https://en.wikipedia.org/wiki/
John_Harsanyi">John Harsanyi</a>—an early game theorist—refers
to as the <a href="https://en.wikipedia.org/wiki/
Veil_of_ignorance">“Veil of Ignorance”</a> and what Rawls found,
time and time again, was that individuals participating in the
experiment would gravitate toward creating the most egalitarian
societies.</p>
```

Moving Focus

```
<p tabindex="0">Please fill out the form below completely.
<strong>All fields are required.</strong></p>
```

Accessible Rich Internet Applications

Navigation Region

```
<div id="nav" role="navigation">
  <ul>
    <li>
      <a href="/about/"><b class="hidden">A Bit </b>About<b
class="hidden"> Me</b></a>
    </li>
    …
  </ul>
</div>
```

ARIA Landmark Roles

- banner
- navigation
- search
- main
- complementary
- contentinfo

2015

24 ways is the advent calendar for web geeks. For twenty-four days each December we publish a daily dose of web design and development goodness to bring you all a little Christmas cheer. Learn more

24 Solve the Hard Problems

Drew McLellan brings our 2015 calendar to a motivational close with some encouragement for the year ahead. Year's end is a time for reflection *and* finding new purpose and enthusiasm for what we do. By tackling the thorniest design and development problems, we can make the greatest impact – and have the most fun. Merry Christmas and a happy New Year!

11 comments

23 Blow Your Own Trumpet

Andy Clarke encourages us to have confidence in the way we communicate with potential clients. Being open and genuine, and providing an insight into what working with you will be like can help prospective clients choose you over your competitors. So before you refresh your glass, refresh your website's copy!

No comments

22 How Tabs Should Work

Remy Sharp picks that old chestnut – tabs – and roasts it afresh on the open fire of JavaScript to see how a fully navigable, accessible and clickable set of tabs can work. Everybody knows some scripting and some CSS can help to make your website bright. Although it's been said many times, many ways, please be careful to do it right.

16 comments

21 What's Ahead for Your Data in 2016?

Heather Burns outlines the most important international legal issues whose effects will ripple through our work on the web in 2016 and beyond. Like the Ghost of Christmas Yet To Come, these trade agreements have approached slowly, gravely, silently. Perhaps now's the time to take action.

No comments

```
<header class="banner" role="banner" id="top">
  <h1 class="banner_logo"><a href="/" rel="home">
    24 ways <span>to impress your friends</span></a></h1>
</header>
```

```
<main role="main">
  …
</main>
```

```
<nav class="navigation" role="navigation" id="menu">
  <h1 class="hidden">Browse 24 ways</h1>
  <ul class="nav nav-topics">
    <li class="nav_item"><a href="/topics/business/"
      data-icon="&#x2655;">Business</a></li>
    …
  </ul>
  …
</nav>
```

```
<footer class="contentinfo" role="contentinfo">
  <p class="contentinfo_copyright">
    <small>&#169; 2005-2016 24 ways and our authors.
    <a href="/about/#colophon">Colophon</a></small>
  </p>
  <p class="contentinfo_social">
    <a href="http://feeds.feedburner.com/24ways"
      rel="alternate">Grab our RSS feed</a>
    <a href="https://twitter.com/24ways" rel="me">Follow us
      on Twitter</a>
    <a href="/newsletter">Subscribe to our newsletter</a>
  </p>
</footer>
```

HTML Landmarks

- banner - first `header` element not inside a sectioning element
- navigation - `nav`
- search
- main - `main`
- complementary - `aside`
- contentinfo - first `footer` element not inside a sectioning element

```
<div>
  This is simply a generic division of content.
</div>
```

Alterna-divs

- `p` - a paragraph
- `ol` - a list of items whose order matters
- `ul` - an list of items whose order doesn’t matter
- `li` - an item in a list
- `dl` - a list of terms and their associated definitions
- `dt` - terms to be defined within a definition list
- `dd` - descriptions of terms in a definition list
- `figure` - referenced content (images, tables, etc.)
- `figcaption` - caption for a figure

Alterna-divs

- `article` - a piece of content that can stand on its own
- `section` - a section of a document or article
- `header` - preamble content for a document, article, or section
- `footer` - supplementary information for a document, article, or section
- `main` - the primary content of a document
- `nav` - navigational content
- `aside` - complementary content

IV Friendly Forms

How does this photo make you feel?

◎ Embarrassing
◎ Upsetting
◎ Saddening
◎ Bad Photo
◎ Other

How does this photo make you feel?

◎ Embarrassing
◎ Upsetting
◎ Saddening
◎ Bad Photo
◎ Other

How does this photo make you feel?

◎ Embarrassing
◎ Upsetting
◎ Saddening
◎ Bad Photo
◉ Other it’s embarrassing

Please describe the photo

◎ It’s embarrassing
◎ It’s a bad photo of me
◎ It makes me sad

Talk to your users
like they talk
to one another

Make it clear users
need to respond

“What’s your first name?”

“What’s your first name?”

“Without your first name, I won’t know how to address you. Could you please provide it?”

“Without your first name, I won’t know how to address you. Could you please provide it?”

“Reserve your spot”

“Reserve your spot”

```
What’s your first name?
<input name="first_name">
```

```
<label>What’s your first name?</label>
<input name="first_name">
```

```
<label for="first_name">What’s your first name?</label>
<input id="first_name" name="first_name">
```

```
<label>
  What’s your first name?
  <input name="first_name">
</label>
```

```
<label for="first_name">
  What’s your first name?
  <input id="first_name" name="first_name">
</label>
```

```
<label for="first_name">What’s your first name?</label>
<input id="first_name" name="first_name">
```

Use the right field type

Free Response

```
<label for="first_name">What’s Your First Name?</label>
<input type="text" id="first_name" name="first_name">
```

Free Response: Email

```
<label for="email">What’s Your Business Email Address?</label>
<input type="email" id="email" name="email">
```

Appearance	Native Validation
Text Field	Maybe

Browsers ignore what they don't understand

Progressive Enhancement

Free Response: URL

```
<label for="url">What’s Your Website’s URL?</label>
<input type="url" id="url" name="url">
```

Appearance	Native Validation
Text Field	Maybe

Choose One

Please describe the photo

◎ It’s embarrassing
◎ It’s a bad photo of me
◎ It makes me sad

Choose One

```
Please describe the photo
<label>
  <input type="radio" name="reason" value="embarrassing">
  It’s embarrassing
</label>
<label>
  <input type="radio" name="reason" value="bad photo">
  It’s a bad photo of me
</label>
<label>
  <input type="radio" name="reason" value="saddening">
  It makes me sad
</label>
```

Choose One

```
<label for="reason">Please describe the photo</label>
<select id="reason" name="reason">
  <option value="embarrassing">It’s embarrassing</option>
  <option value="bad photo">It’s a bad photo of me</option>
  <option value="saddening">It makes me sad</option>
</select>
```

Choose One: Number

```
<label for="volume">How Loud is Spinal Tap?</label>
<input type="range" id="volume" name="volume"
       min="0" max="11" step="1"
       >
```

Appearance	Native Validation
Slider (Maybe)	Maybe

Don’t introduce
unnecessary
complexity

Phone Number:

Free Response: Telephone

```
<label for="tel">What’s Your Business Phone Number?</label>
<input type="tel" id="tel" name="business_phone">
```

Appearance	Native Validation
Text Field	No

We should
work harder
so our users
don’t have to

Structured Data: Dates & Times

- `input[type=date]`
- `input[type=datetime]` (global)
- `input[type=datetime-local]` (local)
- `input[type=month]` (year & month)
- `input[type=week]` (year & week)
- `input[type=time]`

Help users
avoid (and fix)
errors

Enable common information to be auto-filled

Keys for Auto-filling

```
<label for="name">What’s Your Name?</label>
<input id="name" name="name" required aria-required="true">
```

Don’t Store All Values

```
<label for="ssn">What’s Your Social Security Number?</label>
<input id="ssn" name="ssn" required aria-required="true"
       autocomplete="off"
       >
```

Autofill Tokens

- name
- honorific-prefix
- given-name
- additional-name
- family-name
- honorific-suffix
- nickname
- username
- new-password
- current-password
- organization-title
- organization
- street-address
- address-line1
- address-line2
- address-line3
- address-level4
- address-level3
- address-level2
- address-level1
- country
- country-name
- postal-code
- cc-name
- cc-given-name
- cc-additional-name
- cc-family-name
- cc-number
- cc-exp
- cc-exp-month
- cc-exp-year
- cc-csc
- cc-type
- transaction-currency
- transaction-amount
- language
- bday
- bday-day
- bday-month
- bday-year
- sex
- url
- photo
- tel
- tel-country-code
- tel-national
- tel-area-code
- tel-local
- tel-local-prefix
- tel-local-suffix
- tel-extension
- email
- impp

Autofill Token Modifiers

- For Addresses:
  - shipping
  - billing

- For Telephone Numbers:
  - home
  - work
  - mobile
  - fax
  - pager

- Universally:
  - section-*

For Example

```
<fieldset>
  <legend tabindex="0">Ship the blue gift to…</legend>
  <p>
    <label for="b-street-address">Address</label>
    <input name="ba" id="b-street-address"
           autocomplete="section-blue shipping street-address">
  </p>
  <p>
    <label for="b-city">City</label>
    <input name="bc" id="b-city"
           autocomplete="section-blue shipping address-level2">
  </p>
  <p>
    <label for="b-postal-code">Postal Code</label>
    <input name="bp" id="b-postal-code"
           autocomplete="section-blue shipping postal-code">
  </p>
</fieldset>
```

```
[section-] (optional)
[shipping|billing] (optional)
[home|work|mobile|fax|pager] (optional)
[autofill token name]
```

```
<label for="shipping-mobile">Is there a mobile number we can
  reach you on regarding delivery?</label>
<input type="tel" id="shipping-mobile" name="shipping-mobile"
       autocomplete="section-red shipping mobile tel">
```

Let users know when a field is required

Required Fields

```
<p>Fields marked with a * are
  <strong id="required">required</strong>.</p>

…

<label for="first_name">What’s Your First Name?
  <b role="presentation" class="required">*</b>
</label>
<input id="first_name" name="first_name"
          required
          aria-required="true"
          >
```

Required Fields

```
<p><strong>All of the fields are required.</strong></p>

…

<label for="first_name">What’s Your First Name?</label>
<input id="first_name" name="first_name"
          required
          aria-required="true"
          >
```

Required Fields

```
<p><strong>All of the fields are required.</strong></p>

…

<label for="first_name">What’s Your First Name?</label>
<input id="first_name" name="first_name"
          required
          aria-required="true"
          >
```

Provide useful hints as to the type of response you're expecting

Suggesting a response

```
<label for="flight">What flight are you looking for?</label>
<input id="flight" name="flight"
      pattern="DL\d{2,}"
      placeholder="e.g. DL5407"
      >
```

Validate
in the browser

Indicate Required Fields

```
<label for="first_name">What’s Your First Name?</label>
<input id="first_name" name="first_name"
          required
          aria-required="true"
          >
```

Use Native Validation

```
<label for="email">What’s Your Business Email Address?</label>
<input type="email" id="email" name="email">
```

Use Custom Validation Schema

```
<label for="flight">What flight are you looking for?</label>
<input id="flight" name="flight"
      pattern="DL\d{2,}"
      placeholder="e.g. DL5407"
      >
```

Enter three numbers followed by two letters

1234444hshshs

Please match the requested format.

Provide Inline Error Messages

```
<label for="email">Your Email Address</label>
<input id="email" type="email" name="email"
         required aria-required="true"
         aria-invalid="true"
         aria-describedby="email-error"
         >
<strong id="email-error" class="validation-error-message">
  Your email address is required</strong>
```

Provide Inline Error Messages

```
<label for="email">Your Email Address</label>
<input id="email" type="email" name="email"
         required aria-required="true"
         aria-invalid="true"
         aria-describedby="email-error"
         >
<strong id="email-error" class="validation-error-message">
  Your email address is required</strong>
```

Validate
on the server

XBOX
XBOX
Microsoft

```
<input type="hidden" name="price" value="399.99">
```

```
<input type="hidden" name="price" value="1">
```

Never trust
the client

Never trust
the client

Summarize
server-side errors

There were errors with your form submission:

- Message is a required field
- Name is a required field
- Email is a required field

```
<div role="alert">
  <p>There were errors with your form submission:</p>
  <ol>
    <li><a href="#message">Message</a> is a required
      field</li>
    <li><a href="#name">Name</a> is a required field</li>
    <li><a href="#email">Email</a> is a required field</li>
  </ol>
</div>
```

```
<div role="alert">
  <p>There were errors with your form submission:</p>
  <ol>
    <li><a href="#message">Message</a> is a required
      field</li>
    <li><a href="#name">Name</a> is a required field</li>
    <li><a href="#email">Email</a> is a required field</li>
  </ol>
</div>
```

```
<div role="alert">
  <p>There were errors with your form submission:</p>
  <ol>
    <li><a href="#message">Message</a> is a required
      field</li>
    <li><a href="#name">Name</a> is a required field</li>
    <li><a href="#email">Email</a> is a required field</li>
  </ol>
</div>
```

```
<div role="alert">
  <p>There were errors with your form submission:</p>
  <ol>
    <li><a href="#message">Message</a> is a required
      field</li>
    <li><a href="#name">Name</a> is a required field</li>
    <li><a href="#email">Email</a> is a required field</li>
  </ol>
</div>
```

```
<div role="alert">
  <p>There were errors with your form submission:</p>
  <ol>
    <li><a href="#message">Message</a> is a required
      field</li>
    <li><a href="#name">Name</a> is a required field</li>
    <li><a href="#email">Email</a> is a required field</li>
  </ol>
</div>
```

Provide Inline Error Messages

```
<label for="email">Your Email Address</label>
<input id="email" type="email" name="email"
         required aria-required="true"
         aria-invalid="true"
         aria-describedby="email-error"
         >
<strong id="email-error" class="validation-error-message">
  Your email address is required</strong>
```

Thank you!

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