

WEB FORM DESIGN

Filling in the Blanks

Web Form Design: Filling in the Blanks
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For everyone who has had to fill in a form.

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Forms suck. If you don't believe me, try to find people who like filling them in. You may turn up an accountant who gets a rush when wrapping up a client's tax return or perhaps a desk clerk who loves to tidy up office payroll. But for most of us, forms are just an annoyance. What we want to do is to vote, apply for a job, buy a book online, join a group, or get a rebate back from a recent purchase. Forms just stand in our way.

It doesn't help that most forms are designed from the "inside out" instead of the "outside in."¹ Usually inside of an organization or a computer database, a specific set of information has come to define a valid record of a person, place, process, or thing. When it comes time to update or create one of these records, the organization or computer program simply says "here's the information I need," and that request shows up in front of people as a form.

For example, a Web site's database may be constructed in a way that defines a "member" as a unique combination of a first name, last name, email address, and password. So when a person tries to become a member of that site, up pops a form asking for that first name, last name, email address, and password. This is inside out. A set of database fields isn't how most people think of becoming a member of an organization or service.

Looking at things "outside in" means starting from the perspective of the people outside your organization or Web site. How would they define being a member of your service? Chances are, they'd describe it differently than your database would. They'd talk about what's on the other side of the form—for example, about the things they'd get or be empowered to do.

All this illustrates why our primary goal when designing forms needs to be getting people through them quickly and easily. Or better yet, making them invisible in a way that gets organizations the information they need and people the things they want. Forms suck. We should design accordingly.

¹ Lou Carbone introduced me to the terms "inside out" and "outside in" to describe how companies think about their services in a talk at MIX07: <http://www.lukew.com/ff/entry.asp?532>

Register and Start Using Facebook

Join Facebook to connect with your friends, share photos, and create your own profile. Fill out the form below to get started (all fields are required to register).

Full Name:


I am:

Email:

Password:

Birthday: Month: Day: Year:

Security Check



Can't read the text? Try another.

Text in the box:

☐ I have read and agree to the Terms of Use and Privacy Policy.

FIGURE 1.1

The registration form for Facebook, a very popular social networking service. Almost half of this form is devoted to a security check!

Form Design Matters

Though knowing most people dislike filling in forms should be reason enough to care about good form design, there are plenty of other reasons why form design matters—especially online. On the Web, forms are the linchpins of ecommerce, social interactions, and most productivity-based applications.

Ecommerce

In the physical world, a typical shopping experience involves moving through product-laden aisles of colorful packaging and marketing promises. Once you select the items you need, it's off to check out where a (hopefully) friendly clerk greets you, rings up your purchases, processes your payment, bags your items, resolves any issues like missing price tags or discrepancies of cost, and bids you “good day” (see Figure 1.2).



Photograph by Andrew Walsh



FIGURE 1.2

When you're shopping in a local store, checkout usually comes with a smile.

ebY express

Apparel & Accessories | Books | Computers & Networking | Consumer Electronics | Home & Garden | Jewelry & Watches


Apple iPods & MP3 Players

Home > Apple iPods & MP3 Players > 3,093 matches found


Brand	Storage Capacity Range	Exact Capacity
Apple iPod (693)	Less than 1 GB (425)	512MB (100 Songs) (208)
SanDisk (225)	1-9 GB (1,689)	1GB (240 Songs) (449)
Creative Labs (185)	10-19 GB (6)	2GB (500 Songs) (934)
RCA (92)	20-39 GB (270)	4GB (1000 Songs) (284)
More choices...	More choices...	More choices...

More options to browse
Features | Price | Condition | See all...

Grid View | List View | Sort by: Best Matches



New Slim 2GB MP3 MP4 Media Player 2 GB Video Photo w/FM
Brand new in GIFT Box. Ship From US POWERSELLER!
Exact Capacity: 2GB (500 Songs)
Features: Video-Enabled
Color: Black
Condition: New
5 duplicate results have been omitted. View all



80GB Neurus Digital Audio Computer 20,000 songs 4020201
Brand New Neurus Mp3 player Recorder! Very Limited
Exact Capacity: -
Features: -
Storage Capacity Range: Greater than 60 GB
Color: Black
Condition: New

Contrast this experience with shopping online (see Figure 1.3). Within the cyber aisles of an online store, you can search and browse colorful packaging and marketing promises, stack up what you'd like in a "shopping cart," and make your way to checkout. But here the parallels end. Instead of a smiling and helpful clerk, you get a form.

The form couldn't come at a worse time. You want to buy the items you've found. The store wants to close the sale so it can make money. Standing between both your goals is a form and as we know—no one likes forms.

FIGURE 1.3
Browsing for products on the ecommerce site, eBay Express, is fun. Checking out, on the other hand, is a form.

Social Interactions

Our daily interactions with people, services, and products are enhanced through visual, tactile, and auditory cues. When having a conversation with someone, we can see their reactions and hear their voice. When we choose to engage with a group of people, the same types of interactions make us feel welcome or not.

Even physical product experiences have the same potential for engagement. Consider, for example, the initial engagement with a new Apple laptop computer (see Figure 1.4). The various materials and textures you encounter as you unwrap the packaging speak to the quality of experience you'll have with the actual computer: all the details have been well thought out. Perhaps the most personal moment comes when the computer offers to take your picture to represent your account.

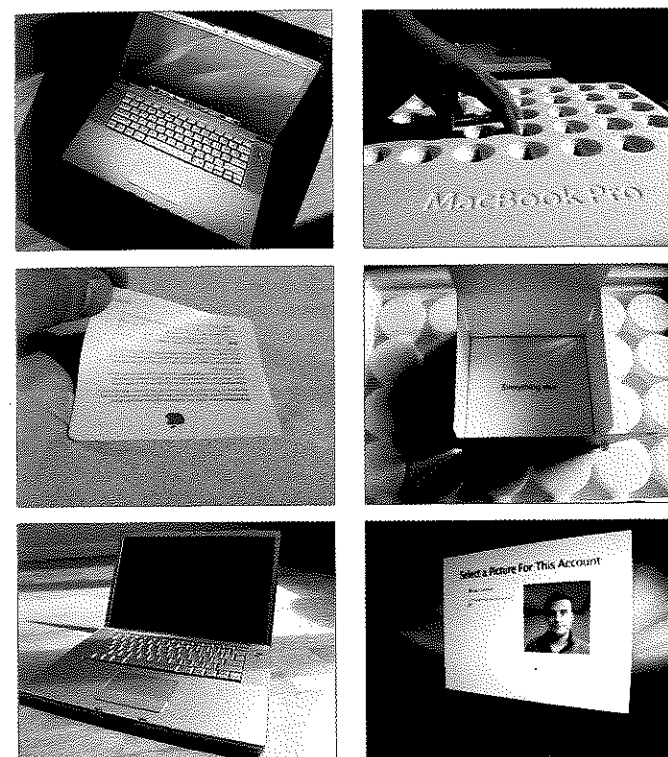


FIGURE 1.4
Unpacking a new Apple MacBook Pro is a tactile, engaging experience that reflects the quality of the product inside.

ebY express

Enter Your Information (Already registered? Sign In)

Please enter your U.S. address and email address to create your account.

First Name Last Name

Street Address

City

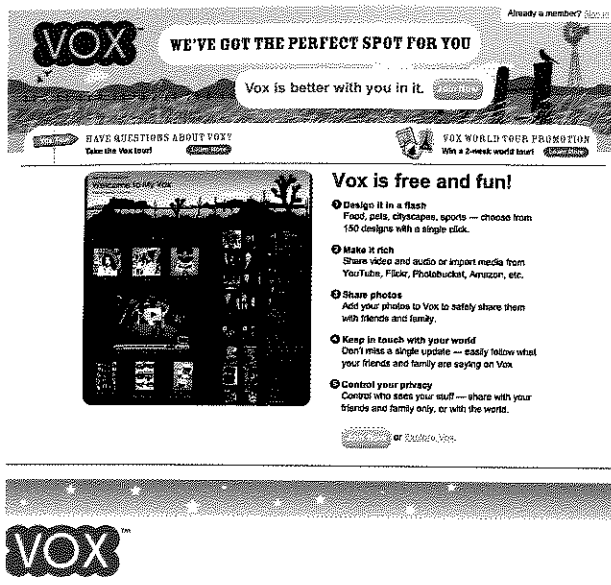
State ZIP Code Country or Region U.S. addresses only, please.

Phone Number ext.: Needed if there are questions about your order.

A valid email address is required to communicate with you.

Email address

Re-enter Email address



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VOX

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Password:

Confirm password:

Your Vox address: <http://> .vox.com

Display name:

Birthday:

First name:

Last name:

Gender:

Country:

Postal code:

Enter code:

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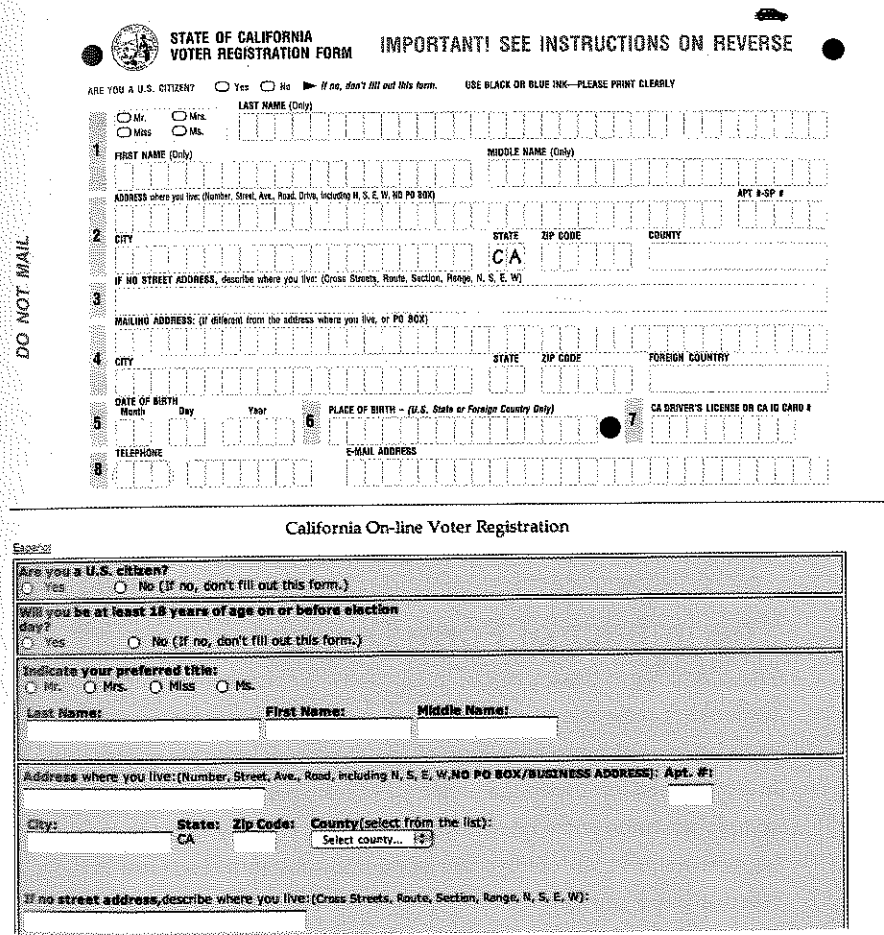
[Continue](#)

However, when we're online, each of these experiences comes to us as a form. Want to join a fun new social network? Just fill in this form (see Figure 1.5). Care to share this great video with a close friend? Just fill in a form. Want to respond to an interesting author's blog post? You guessed it—a form. Just about everywhere people want to participate in social interactions online, forms get in the way. And since participation—number of members, number of activities completed, etc.—is how most social applications thrive, the organizations running these sites rely on forms for business success.

FIGURE 1.5
Vox looks like a fun social network but if you want to join, you'll need to fill out this new account form, which isn't fun at all.

Productivity

In addition to ecommerce and social interactions, the Web is increasingly a place where people get things done. From online banking to Web-based word processing, Web applications designed for productivity are growing in number. For productivity-based Web applications, the online world doesn't differ that much from the offline world. If filling in a survey in the physical world requires a form, the cyberspace version is not likely to be much different (see Figure 1.6).



STATE OF CALIFORNIA VOTER REGISTRATION FORM IMPORTANT! SEE INSTRUCTIONS ON REVERSE

ARE YOU A U.S. CITIZEN? ☐ Yes ☐ No ☐ If no, don't fill out this form. USE BLACK OR BLUE INK—PLEASE PRINT CLEARLY

LAST NAME (Only)

FIRST NAME (Only) MIDDLE NAME (Only)

ADDRESS where you live: (Number, Street, Ave., Road, Drive, including N, S, E, W, NO PO BOX)

CITY STATE ZIP CODE COUNTY

IF NO STREET ADDRESS, describe where you live: (Cross Streets, Route, Section, Range, N, S, E, W)

MAILING ADDRESS: (if different from the address where you live, or PO BOX)

CITY STATE ZIP CODE FOREIGN COUNTRY

DATE OF BIRTH: Month Day Year

PLACE OF BIRTH - (U.S. State or Foreign Country Only)

CA DRIVER'S LICENSE OR CA ID CARD #

TELEPHONE E-MAIL ADDRESS

California On-line Voter Registration

Are you a U.S. citizen?
☐ Yes ☐ No (If no, don't fill out this form.)

Will you be at least 18 years of age on or before election day?
☐ Yes ☐ No (If no, don't fill out this form.)

Indicate your preferred title:
☐ Mr. ☐ Mrs. ☐ Miss ☐ Ms.

Last Name: First Name: Middle Name:

Address where you live: (Number, Street, Ave., Road, including N, S, E, W, NO PO BOX/BUSINESS ADDRESS): Apt. #:

City: State: Zip Code: County (select from the list):

If no street address, describe where you live: (Cross Streets, Route, Section, Range, N, S, E, W):

FIGURE 1.6
California voter registration offline and online—it's all just a form.

Yet again, we find forms standing between user needs and business goals. People want to manage their information or create new artifacts. The businesses supplying these services are interested in growing and optimizing the amount of data or customer activity they manage. The barrier for both sides is, of course, a form.

All these examples should make it pretty clear that Web forms stand in the way of user needs (what people want from a product or service) and business goals (how the organizations running these applications stay in business).

- On ecommerce sites, people want to buy the things they need and businesses want to maximize sales. Standing in the way is the checkout form.
- On social applications, people want to join communities, chat with their friends, or share content. From a business perspective, these sites want to grow and increase engagement between people. In the way are registration and contact forms.
- In Web-based productivity tools, people want to get things done and create or collaborate. Businesses want to increase the amount of content and time spent on their site. Once again, forms are in between.

So forms enable commerce, communities, and productivity on the Web to thrive. It's no wonder that form design matters.

The Impact of Form Design

Since Web forms broker crucial interactions like checkout and registration, it shouldn't come as a surprise that they can have a big impact on business goals. Increased completion rates of 10–40 percent were not uncommon in many of the form redesign projects I've been part of. And when form completion means new sales or new customers, it's easy to see how improvements in form design can amount to substantial increases in revenue (see Figure 1.7).

FIGURE 1.7

Where would online video sharing site YouTube be without the form that enables its customers to upload over 70,000 videos per day?

One of the biggest form redesign success stories I know of was outlined in a 2004 CHI (Computer Human Interaction) conference paper titled “A process for creating the business case for user experience projects”² by the eBay user experience and design team. Their registration redesign had such a positive impact on the bottom line of the company that it became a model for how design projects were evaluated and funded.

² This paper can be found at: <http://portal.acm.org/citation.cfm?id=986078&dl=portal&dl=ACM>

The enormous success of the eBay registration redesign was grounded in a deep understanding of the opportunities and issues present in the registration process. The team culled through usability data, customer support records, site logs, and Web conventions to inform their form redesign recommendations (see Figure 1.8).

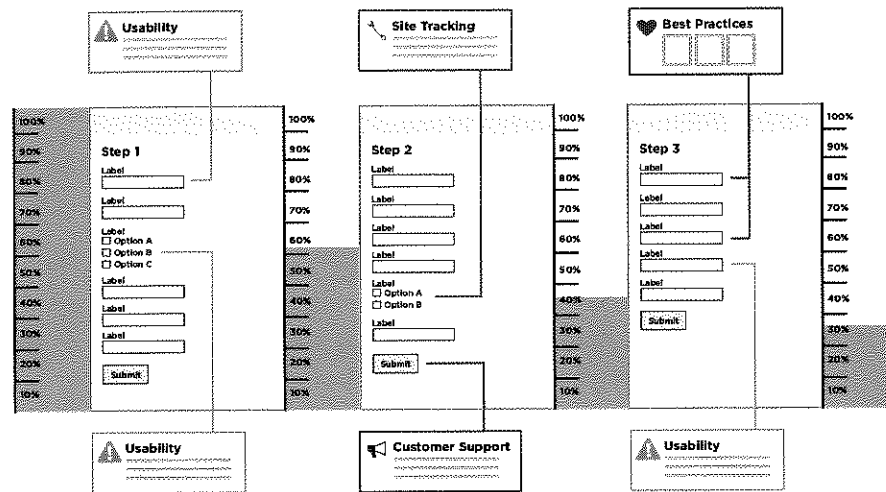


FIGURE 1.8

In the eBay registration redesign, customer support, usability findings, and site tracking data were used to illustrate major issues. The entire flow was mapped out page by page with site click-through data that illustrated user drop-off and best practice analysis.

Each of these unique sources of data provides valuable ways to measure the impact of a form design. Let's take a look at them individually:

Usability Testing: Observing how people interact with forms in a usability lab setting can provide valuable qualitative and quantitative information.

- Number and location of errors or issues
- Severity of errors or problems
- Completion rates

- Time spent to complete the form or sections of the form
- Satisfaction scores
- Subjective comments about tasks

Field Testing: Ethnographic observation of people interacting with forms in their home or office.

- Sources used to access information required by forms: documents, software, people, etc.
- Environment in which forms are filled in: loud office, small monitor, etc.
- Any additional context that informs form completion or error rates

Customer Support: Knowing the problems reported by users when filling in forms can help isolate issues and ways to resolve them.

- Top problems reported
- Common ways to resolve reported problems
- Demographic information about people reporting problems
- Operating system and Web browser settings for people reporting problems

Site Tracking: Forms can be instrumented to track any number of useful quantitative metrics.

- Completion rates
- Where people dropped off the form if they did not complete it
- How people accessed the form
- Which form elements were used
- What data was entered
- Web browser and operating system information

Eye Tracking: Recording how people make sense of the presentation of forms can illuminate points of complexity (see Figure 1.9).

- What people looked at on a form
- Number of eye fixations: level of effort required to parse a form
- Length of eye fixations: time spent looking at each element

Web Conventions: Surveying common solutions to form design problems can provide valuable insights (see Figure 1.10).

- Unique solutions to design problems
- Common patterns in use across the Web

These data points not only inform the design process, but they also help measure success. Therefore, it's a good idea to use some of these metrics with your form designs so you can better gauge your success. This doesn't

e-Commerce | Checkout Flow: Page Comparison

[illegible]

require a lot of expensive testing or development. Observing how a few people complete your forms or monitoring Web server logs with off-the-shelf Web analytics programs can provide a lot of useful information.

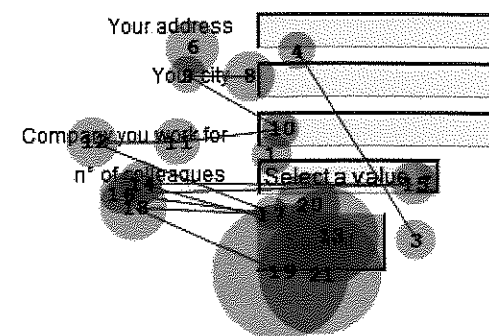


FIGURE 1.9

Eye-tracking data from Matteo Penzo's study of form label layouts published in *UXmatters*, July 2006, showing how people's eyes move through a simple form.

[illegible]

FIGURE 1.10

A Web conventions survey of online checkout forms that illuminates some interesting patterns we'll look at in a later chapter.

Perspective: Jared Spool
Founding Principal, User Interface Engineering

Changing a Button Increased Annual Revenues for a Web Site by \$300 Million

It's hard to imagine a form that could be simpler: two fields, two buttons, and one link. Yet, it turns out this form was preventing customers from purchasing products from a major ecommerce site, to the tune of \$300,000,000 a year. What was even worse: The designers of the site had no clue there was even a problem.

The form was simple. The fields were *Email Address* and *Password*. The buttons were *Login* and *Register*. The link was *Forgot Password*. It was the login form for the site. It's a form that users encounter all the time. How could they have problems with it?

The problem wasn't as much about the form's layout as it was about where the form lived. Users would encounter it after they filled their shopping cart with products they wanted to purchase and then pressed the *Checkout* button. It came before they could actually enter the information to pay for the product.

The team saw the form as enabling repeat customers to purchase faster. First-time purchasers wouldn't mind the extra effort of registering because, after all, they would come back for more, and they'd appreciate the expediency in subsequent purchases. Everybody wins, right?

We conducted usability tests with people who needed to buy products from the site. We asked them to bring their shopping lists, and we gave them money to make the purchases. All they needed to do was complete the purchase.

We were wrong about the first-time shoppers. They *did* mind registering. They resented having to register when they encountered the page. As one shopper told us, "I'm not here to enter into a relationship. I just want to buy something."

Some first-time shoppers couldn't remember if it was their first time, and became frustrated as each common email and password combination failed. We were surprised at how much they resisted registering.

Perspective: Jared Spool (Continued)

Without even knowing what was involved in registration, all the users who clicked on the button did so with a sense of despair. Many vocalized how the retailer only wanted their information to pester them with marketing messages they didn't want. Some imagined other nefarious purposes, such as the obvious attempt to invade their privacy. (In reality, the site asked nothing during registration that it didn't need to complete the purchase: name, shipping address, billing address, and payment information.)

Repeat customers weren't any happier. Except for a few who remembered their login information, most stumbled on the form. They couldn't remember the email address or password they had used previously. Remembering which email address they registered with was problematic—many had multiple email addresses or had changed them over the years.

When shoppers couldn't remember their email addresses and passwords, they'd attempt to guess what it could be multiple times. These guesses rarely succeeded. Some would eventually ask the site to send the password to their email address, which could be a problem if they didn't remember which email address they initially registered with.

(Later, we did an analysis of the retailer's database, only to discover 45 percent of all customers had multiple registrations in the system, some as many as 10. We also analyzed how many people requested passwords, to find out it reached about 160,000 per day. Around 75 percent of these people never even tried to complete the purchase once requested.)

The form, which was intended to make shopping easier, turned out to help only a small percentage of the customers who encountered it. (Even many of those customers weren't helped, since it took just as much effort to update any incorrect information, such as changed addresses or new credit cards.) Instead, the form just prevented sales—a lot of sales.

The designers fixed the problem easily. They took away the *Register* button. In its place, they put a *Continue* button with a simple message: "You do not need to create an account to make purchases on our site. Simply click *Continue* to proceed to checkout. To make your future purchases even faster, you can create an account during checkout."

Perspective: Jared Spool (Continued)

The results: The number of customers purchasing went up by 45 percent. The extra purchases resulted in an extra \$1.5 million the first month. For the first year, the site saw an additional \$300,000,000.

On my answering machine is the message I received from the CEO of the \$25 billion retailer, the first week they saw the new sales numbers from the redesigned form. It's a simple message: "Spool! You're the man!" It didn't need to be a complex message. All we did was change a button.

Design Considerations

Given the impact that form design can have on crucial metrics such as completion and error rates, it's only natural to ask: How can we design good forms? Unfortunately, the right answer is a bit unsatisfying: It depends.

It depends on the business goals, user needs, and context of your forms. It may also depend on the issues or opportunities your usability testing, live site metrics, or other data sources illuminate. In other words, there isn't just one right answer.

Fortunately, there is a way to go from the quintessential design answer of "it depends" to actionable solutions and ideas. We can do this by understanding the design considerations of the problem we are trying to solve. Design considerations are a combination of principles and patterns that provide a framework for finding appropriate solutions.

Design Principles

Design principles are the guiding light for any solution. They articulate the fundamental goals that any solution should embody. In the case of Web form design, the principles I continually strive for are

- **Minimize the Pain:** People want what lies on the other side of a form so the process of completing forms should be as simple and easy as possible.
- **Illuminate a Path to Completion:** Since the point of just about every form is to get it filled in, make it abundantly clear how people can accomplish that goal.
- **Consider the Context:** Forms rarely exist in a vacuum. They are almost always part of a broader context (audience, application, business), which informs how they'll be used.
- **Ensure Consistent Communication:** Forms broker conversations between customers and companies. Although an organization can have many groups taking part in these conversations (marketing, privacy, engineering, design, business, etc.), a form needs to speak with one voice.

Design Patterns

Design patterns, on the other hand, are actual solutions to problems in context. When applied appropriately, they enforce design principles and increase success for both user needs and business goals.

I've organized this book around the set of best practices I've come to know and utilize over 12 years of Web form design. Every best practice in the book enforces underlying principles of good form design. Most

are presented as design patterns that outline how they can be applied—for example, if your goals are “x,” then a good solution may be “y.” Or similarly, if your constraints are “a,” then a worthwhile approach is “b.”

This type of structure allows you, the reader, to understand which pattern is the best practice for your particular context, so that you can go quickly from “it depends” to actionable solutions.

It’s also worth pointing out that many of the best practices in this book have been informed by live-to-site, eye-tracking, and usability testing across a wide range of Web companies and users. In fact, we did some eye-tracking and completion studies just for this book. That doesn’t mean we have all the right answers, but there’s some real data behind these tips!

So without further ado, let’s dig in.

CHAPTER 2

Form Organization

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Although many visual and interaction design considerations play an important role in how people complete forms, it's often the content within the form and how we organize it that either leaves people scratching their heads or allows them to whiz through unperturbed.

What to Include

People need to parse every question you ask them, formulate their response to that question, and then enter their response into the space you have provided. The best way to speed up that process is not to ask the question at all. That means if you want to be vigilant about optimizing your forms, put every question you are asking people to the test. Do you really need to ask this question? Is it information that you can get automatically? Is there a better time or place to get an answer from people? Though this process appears tedious, you may be surprised when you discover what you can leave off your forms.

Deciding what stays on a form may mean challenging the information collected when the form was a paper document. Often, legacy questions that are no longer applicable are simply ported over when a paper form is digitized.

Agreeing as to which questions should remain on a form may also be a discussion among several departments in your company or organization. The marketing team may have specific questions to understand customers better. The engineering team may require specific information to identify unique individuals. The legal team might mandate certain terms and conditions that have to be accepted by new customers. And the list goes on.

Though all these teams may have questions they want to pose to your customers, your forms need to speak with one voice. To achieve that goal, teams will need to come together and work out which questions make it into each form. Take a look at Caroline Jarrett's "Keep, cut, postpone, and explain" framework (outlined in the sidebar) for a way to decide what makes the cut.

Perspective: Caroline Jarrett

Usability consultant, Effortmark Ltd.

Co-author: *Forms That Work* (Morgan Kaufmann, in press)

Co-author: *User Interface Design and Evaluation* (Morgan Kaufmann, 2005)

People Before Pixels

WHAT TO THINK ABOUT BEFORE YOU START

I love forms, mostly because they offer so many opportunities for improvement. And I love discussing forms with designers. So I encourage people to write to me with questions about their forms.

Often, these questions show that designers are thinking hard, which is great, but perhaps they're missing the people aspect while concentrating on pixels—the fine details, such as whether to put a colon on the end of the label. Users really don't care about colons.

USERS REALLY DO CARE ABOUT WHAT THEY'RE ASKED AND WHY

Users care about what they're asked, why they are asked it, and beyond everything else, whether those questions are appropriate to the context, meaning whatever the user is trying to achieve by filling in the form.

For example: a street address. If you have to put your street address into a Web site before browsing it, chances are that you'll react badly. Many of us maintain a convenient false set of personal answers, including an address and email that we use when we consider that it's impertinent to be asked personal questions right now.

But if you've decided on buying something that needs to be shipped, then it would be distinctly strange if the site did not ask you for a street address. And you'll probably take care to enter a real address accurately.

START BY THINKING ABOUT PEOPLE AND RELATIONSHIPS

So before you start thinking about where to place your questions on the page, think about people and relationships.

Why are users filling in your form? What is their relationship to your organization?

Do they feel good or bad about it? Is this form just another stepping stone on the road to their continuing enthusiasm for your product, service, or whatever? Or is it a fearful

Perspective: Caroline Jarrett (Continued)

barrier that's keeping them from something else they'd prefer to be doing? Or are you just battling indifference: they don't care one way or another, and may just bail because they can't see the point? If you don't know enough about your users to be sure, then ask them. Watch them using your Web site or talk to them, somehow.

If you've already got questions for your form, then why are you asking those particular questions? And why are you asking them right now, at this point in the relationship? If you don't know enough about your organization to be sure, then investigate. Find someone in the organization who does know. If there isn't anyone, that's telling you that maybe your whole approach needs rethinking. Is the form necessary at all?

KEEP, CUT, POSTPONE, OR EXPLAIN: FOUR STRATEGIES FOR BETTER QUESTIONS

Maybe, as with my "shipping" example, you and your users are in harmony: you're asking for answers that they are eager to give you. Well done—keep those questions and move to thinking about the details of design.

But perhaps you're asking a question that you don't *really* need *right now*. Cut: get rid of the question and help everyone. That translates to less work for you in design, less work for your users, and no long-term storage.

Or maybe it's the "right now" part: postpone asking that question until later, until the point where it moves from unnecessary or intrusive to harmonious.

Or maybe it's one of those difficult questions that your users don't want to answer: personal data, such as a phone number, or something that requires research or extra thought. But you've investigated your form, you know that there is a real value to your organization in asking these questions, and there is some important reason why you have to ask them ahead of time. Your strategy is to explain: write a very short but clear reason why you're asking. Make sure it offers a benefit to the user—for example, "Asking you this now helps us to process your order more quickly."

And if you can't think of any benefit to the user, then you'd better go back to finding out whether you really need that question because you're going to find that you lose users at that point in the form.

Perspective: Caroline Jarrett (Continued)**YOUR VIEW, MY VIEW: BALANCING USER AND BUSINESS NEEDS**

Of course, there's nothing new about being told to think about your users before starting your design. My message is about balancing user needs and business needs—harder work than stressing about labels and colons, but with a much greater impact on your form design.

Like I said: People before pixels.

Have a Conversation

Because forms facilitate conversation between a person and a company or organization, it helps to think about organizing the structure of a form as a conversation. Consider the following scenario.

You encounter a stranger who asks you: "What's your name?" "What's your address?" "What's your email address?" "What's your birth date?" Before too long you, find yourself asking: "Who is this person?" "Why does he (or she) need all this information?" "Why am I telling him (or her) all this?" Quite quickly, you become uneasy and wish the stranger would tell you something about himself or herself instead of barraging you with questions. That barrage of questions is—of course—our friend, the form.

Thinking about how a form can be organized as a conversation instead of an interrogation can go a long way toward making new customers feel welcome. I still have a vivid memory of a woman who was interviewed during a field study for a major Web retailer remarking, "This site wants to know so much about me, but I know nothing about it."

Giving people the confidence to complete forms starts with how we ask them the questions required to complete a form successfully. Input fields are the elements on a form responsible for gathering people's answers to our questions. Labels are the form elements responsible for asking the questions. Whenever these two elements can act as a natural part of a meaningful conversation, people are likely to respond with answers easily and readily.

Consider the difference between the following questions from two different versions of the Yahoo! registration form, as shown in Figure 2.1.

FIGURE 2.1

Two ways conversational language can clarify questions. “Day” and “Year” vs. “dd” and “yyyy”; “Preferred content” vs. “I prefer content from.”

* Preferred content: ?

I prefer content from ?

* Birthday: dd ?

Birthday Day

Which version seems more approachable? Which one are you more likely to have an answer for? Treating inputs as part of the question being asked (the label) mirrors the way we answer questions in the real world. This becomes even more important as the questions you ask become more complex or unfamiliar.

Consider the label “Issuing Bank.” What is that asking? Now, if we rephrased it as “What bank issued you this document?” odds are that you’d have a quicker answer. Of course, both of these labels will be made clearer by their surrounding context. For example, are you filling a form about a missing financial document or a form to set up a new online account?

The terms you use in your labels also play a pivotal role in determining how quickly people can provide an answer. To continue with our banking example, do people understand the term “issuing”? Is that vocabulary they’d use, or is it a term used by the bank? Perhaps people think instead: “Which bank gave you this document?” Using the terms your customers use to describe their actions helps frame questions in a more understandable way.

This doesn’t mean that all of the labels on a form should be reworded as sentences. There are many instances when concise, single-word labels work *much* better than longer, more descriptive labels. But when there’s

potential ambiguity in your questions, clear conversational language often helps clear things up.

Organizing Content

In order to keep the conversation flowing smoothly, it’s a good idea to organize the questions you’re asking people into meaningful groups. Depending on their size and context, these groups could then be presented across multiple Web pages or as sections of a single Web page.

YAHOO! Yahoo! - Help

Hi There!
We'll get you set up on Yahoo! in three easy steps! Just answer a few simple questions, select an ID and password, and you'll be all set.

Already have an ID or Mail address?
Forget your password or Yahoo! ID?

I prefer content from ?

1. Tell us about yourself...

My Name

Gender

Birthday Day

I live in

Postal Code

2. Select an ID and password

Yahoo! ID and Email @yahoo.com

Password Password Strength

Re-type Password

3. In case you forget your ID or password...

Alternate Email

Security Question

Your Answer

Just a couple more details...

Type the code shown

[Try a different image](#)

Do you agree? ☐ I have read and agree to the Yahoo! Terms of Service and Yahoo! Privacy Policy, and to receive important communications from Yahoo! electronically.
For your convenience, these documents will be emailed to your Yahoo! Mail account.

FIGURE 2.2

The new Yahoo! registration form uses a conversational tone to engage new members.

As an example, the Yahoo! registration form in Figure 2.2 groups questions about you, the account you are creating, a way for you to reaccess your account, and a few trust and safety items (terms of service and spam protection) into four distinct sections. These sections are labeled with headers that stand out from the rest of the elements on the page. The bold purple font in which they are displayed carries more visual “weight” than the other form labels, allowing you to quickly scan the form to see what type of information you’ll need to provide.

Longer or more complex forms may need to distribute content groups across multiple pages, as seen in online real estate site Redfin’s form for buying houses online. This overly complex process—not through any fault of Redfin—also benefits from being organized in a way that allows people to easily scan required sections they need to answer. In case someone didn’t know what he was getting into when buying a home, Redfin’s eight-page form makes it vividly clear (see Figure 2.3)! It’s worth noting that forms this long benefit from additional feedback and interactions, which we’ll discuss in later chapters.

When deciding how to organize forms, designers will often wonder if they are better off grouping all their content areas into a single Web page or dividing them into a series of pages. And if a form is divided into a series of pages, how many pages is too many? The answer, of course, is... it depends. But we can get a better answer by understanding the context for each form we design. Who is filling the form in and why? Answering this up front allows us to think about our forms as a deliberate conversation with a specific person instead of the inputs for a database.

When you approach forms as a conversation, natural breaks will emerge between topics. First, let’s talk about who you are. Now let’s discuss where you live. When these distinct topics are short enough to fit into a few sections, a single Web page will probably work best to organize them. When each section begins to run long, multiple Web pages may be required to break up the conversation into meaningful, understandable topics.

[Learn more](#)

Other Costs (if they apply)

Who will pay the county transfer fee?

☐ Buyer
☐ Seller

Who will pay the city transfer fee?

☐ Buyer
☐ Seller

Who will pay the home owner's association transfer fee?

☐ Buyer
☐ Seller

Who will pay for the home owner's association transfer documents?

☐ Buyer
☐ Seller

Home Warranty

Do you want to order a home warranty?

Who will pay for the home warranty?

☐ Buyer
☐ Seller

How much home warranty coverage?

Which home warranty options do you want?

☐ Air conditioner ☐ Well
☐ Septic ☐ Roof
☐ Pool ☐ Washer / Dryer / Refrigerator

Other:

Liquidated Damages

Liquidated damages can be assessed if the buyer fails to complete the purchase because of default. If the buyer agrees to pay liquidated damages in case of default, then the seller retains the deposit actually paid by the buyer.

If you default, do you agree to pay liquidated damages?

☐ Yes
☐ No

Dispute Resolution

Rather than having disputes resolved in courts, buyers and sellers can agree to have all disputes resolved by arbitration as provided by California law.

Do you agree to submit disputes to neutral arbitration?

☐ Yes
☐ No

Expiration

When do you want your offer to expire? (Commonly 3 calendar days after the buyer signs and dates the offer)

This offer shall officially expire, be deemed revoked, and the deposit shall be returned, unless the offer is signed by the seller and a copy of the offer is personally received by the buyer at 5 p.m. on the third day after this offer is signed by the buyer.

If the seller makes a counter-offer, your Redfin Agent will help you respond appropriately.

FIGURE 2.3
Redfin groups the myriad of steps required to purchase a home into a series of manageable content groups. Each section has a title and some also include a bit of descriptive text.

These conventions can provide a great starting point for thinking about how to organize the conversation on your shopping cart form. Since people are likely to be familiar with these patterns, chances are they could work well in your ecommerce site. However, it's important to work from the patterns a Web conventions survey uncovers and not simply copy what the competition is doing on their site. Usually a direct replica of someone else's form organization won't be the right fit for your specific situation.

Group Distinctions

In both the Yahoo! and Redfin examples we saw earlier, each content group was visually differentiated from the rest of the form: a bold purple font on Yahoo! and a bold font and subtle background color on Redfin. As these examples illustrate, communicating meaningful distinctions between content groups doesn't require a lot of visual difference. In fact, too much contrast between content groupings often creates excessive visual noise that gets in the way of people's ability to scan a form.

Consider the differences between the following two forms in Figures 2.5 and 2.6. One relies on yellow borders, a yellow background color, red section headers, and merged table cells to group related content. The other simply relies on a subtle background color change to separate meaningful sections of the form. Using a minimum amount of visual information helps keep the focus on a form's content and not its presentation.

資料送付先

☒ 現住所に送付する
☐ その他住所（勤務先など）に送付する

※ 現住所以外の資料送付先住所

氏名（漢字）	氏 <input type="text"/> 名 <input type="text"/>	例）かもめ 太郎
氏名（フリガナ）	氏 <input type="text"/> 名 <input type="text"/>	（全角カタカナ）例）カモメ タロウ
郵便番号	<input type="text"/> - <input type="text"/>	（半角）例）000-0000
都道府県	<input type="text"/> <small>選択して下さい</small>	
市区郡	<input type="text"/> <small>選択して下さい</small>	
住所	<input type="text"/>	
字丁目以降	例）緑地7-3-5	
建物名	例）かもめマンション203号室	
電話番号	<input type="text"/> - <input type="text"/> - <input type="text"/> （半角）	
FAX番号	<input type="text"/> - <input type="text"/> - <input type="text"/> （半角）	

FIGURE 2.5

Many distinct visual elements on this form get in the way of seeing the questions the form is asking.

氏 名

フリガナ
（全角カタカナ）

郵便番号 -
（半角数字）
（7桁表示が分からない方は、こちらまで参照ください）

電話番号 - -
（半角数字）
（市外局番から入力してください）
☒ 直通 ☐ 呼出し ☐ 内線

携帯/PHS番号 - -
（半角数字）
（3桁） （4桁） （4桁）

休暇中の連絡先 ☐ 現住所と同じ → これ以降は入力せず、「次に進む」
☒ 現住所と違う → 以下の項目を入力してください

郵便番号 -
（半角数字）
（7桁表示が分からない方は、こちらまで参照ください）

電話番号 - -
（半角数字）

FIGURE 2.6

A subtle background color change or thin rule is often all you need to effectively group related content in a form.

But even subtle distinctions between content groups can be overused. To account for what they consider to be shortcomings of left-aligned form labels, some designers opt to use alternating background colors to group left-aligned labels with their right-aligned inputs, as seen in Figure 2.7. However, eye-tracking studies done on label placement¹ reveal that people generally don't have problems correlating inputs to labels in a left-aligned layout (as we'll see in Chapter 4). It just takes them longer to do so. As a result, this approach doesn't really solve the problem. In fact, it can actually create a different issue.

FIGURE 2.7

Although it may be tempting to use alternating background colors to group left-aligned labels and their corresponding inputs, these elements can add a lot of visual noise to a form.

1 Matteo Penzo's Label Placement in Forms study from UXmatters July 2006: <http://tinyurl.com/febx>

Consider the example in Figure 2.8 where two different background colors are used to distinguish labels and inputs and a horizontal rule is used to separate each label and input field pair. This approach ultimately adds an additional 15 visual elements to the layout: the centerline, each background box, and each horizontal line. These elements begin to distract our eye and make it more difficult to focus on the most important elements in the layout: the labels and inputs. As information design expert Edward Tufte points out: "Information consists of differences that make a difference."² In other words, any visual element that is not helping your layout ends up hurting it. This can be seen when you try to scan the left column of labels. Your eye repeatedly pauses (see the bottom of Figure 2.8) to consider each horizontal line and the box created by each combination of line and background color.

FIGURE 2.8

The addition of excessive visual elements can distract from a form's primary content: and interrupt the scan line of a form.

2 Edward Tufte, *Envisioning Information*, 1990 Graphics Press

Of course, this doesn't mean that background colors and rules should never be used within form layouts. They certainly have their place. But when thinking about how to distinguish between content groups, consider what the minimum amount of visual information needed is (see Figure 2.9). Chances are much more likely that it will become a distraction instead of an aid.

Enter Your Information (Already registered? Sign In)

Please enter your U.S. address and email address to create your account.

First Name		Last Name	
<input type="text"/>			
Street Address			
<input type="text"/>			
City			
<input type="text"/>			
State	ZIP Code	Country or Region	U.S. addresses only, please.
<input type="text"/>	<input type="text"/>	United States	
Phone Number			
<input type="text"/>			
Needed if there are questions about your order.			
A valid email address is required to communicate with you.			
Email address			
<input type="text"/>			
Re-enter Email address			
<input type="text"/>			
Create Password		How secure is your password?	
<input type="text"/>		<input type="text"/>	
Must be at least 6 characters, including a number or special character. Example: eXpr3SS		Check your password strength - the higher, the better.	
Re-enter Password			
<input type="text"/>			

By clicking "Register" you agree to eBay Express's privacy policy and terms of use. You also agree to be contacted for marketing purposes, but you can change your notification preferences in your account.

Register

FIGURE 2.9

The eBay Express checkout form uses a thin rule to separate meaningful content sections. Just the minimum amount is needed to make a clear distinction.

Best Practices

- Take the time to evaluate every question you are adding to your forms. Be vigilant about removing everything that isn't necessary.
- Strive for succinctness in all the questions (labels) you ask in your forms.
- When succinct labels may be misinterpreted, look for opportunities to use natural language to clarify the questions your forms ask people to answer.
- Ensure that your forms speak with one voice, despite questions from several different people or departments.
- Organize the content on your forms into logical groups to aid scanning and completion.
- When possible, structure your forms as a conversation. Natural breaks between topics will emerge that can help you organize your form.
- If a form naturally breaks down into a few short topics, a single Web page is likely to be a good way to organize the form.
- When a form contains a large number of questions that are only related by a few topics, multiple Web pages are probably a good way to organize the form.
- When a form contains a large number of questions related to a single topic, one long Web page is generally a good way to organize the form.
- Consider asking optional questions only after a form is completed. Chances are you'll get more answers than if these questions were part of the initial form.
- Consider using Web convention surveys to discover patterns in how forms are organized on specific kinds of sites.
- Use the minimal amount of visual information necessary to distinguish content groups.
- Use initial capital letters to make the titles of content groups easier to scan.

CHAPTER 3



Path to Completion

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I think it's safe to say that people should never be presented with Web forms they don't need to fill out. This, of course, means that the primary goal of anyone encountering a form is to complete it. The hope is that they want what's on the other side: to make a purchase, to start using a service, to manage information, etc. Because—I'll reiterate from Chapter 1—no one likes filling in forms. Trust me, I've asked thousands of people while talking about form design. Only one has said she enjoys it!

This means that illuminating a path to completion by showing people how they can complete a form is crucial.

Name That Form

Part of providing a clear path to completion is telling people what form they are on and what they can accomplish by filling it out. As people are unlikely to read a detailed description of what each form they encounter does, this

burden mostly falls on the form's title. As a result, it's crucial that form titles match the calls to action that people use to access them.

In the Fairmont Hotels in Figure 3.1, one of the calls to action on the page is a link that allows people to "Activate Account." The form they land on after following this link, however, is titled

MANAGE YOUR FAIRMONT PRESIDENT'S CLUB PROFILE

If you are already a Fairmont President's Club member and you would like to manage your profile directly so that you can view your stay history, comment on past stays, book special member packages and update your profile, simply enter your Fairmont President's Club number along with month and day of birth. We must verify your personal membership number against your birth date in order to confirm your identity and ensure privacy.

In addition, select a username and password so that you can sign-in directly to Fairmont.com each time you visit. This will allow you to expedite online booking experience and receive email confirmations for your reservations.

If you are having challenges with any of the steps below please feel free to click the "Help" button and complete the form. The form will be sent to the Fairmont President's Club Guest Services Team.

YOUR FAIRMONT PRESIDENT'S CLUB NUMBER

USER NAME AND PASSWORD

Please choose a user name and password

FIGURE 3.1

Clicking on the Activate Account link from the Fairmont Hotels front page leads to a form titled "Manage Your Fairmont President's Club Profile." Are you in the right place?

"Manage Your Fairmont President's Club Profile." Are they in the right place? Can this form be used to activate their account?

If they take the time to read the instructional text, it turns out that, in fact, they can activate their account, but these uncertainties could have been avoided altogether if the form were simply titled "Activate Your Account."

Start Pages

While the right title for a form can ensure that people start in the right place, we often have to provide some additional information on how to start. In cases where forms require a significant amount of information that people are unlikely to have readily available or a substantial amount of time to complete, start pages can provide valuable context.

When you're applying for a Fidelity account online, the start page in Figure 3.2 lets you know that account statements, a driver's license, bank account information, and more are required to successfully complete the form. You're also told the process should take around 10-15 minutes.

FIGURE 3.2

A start page on Fidelity lets you know what it takes to complete this form.

These types of start pages don't belong before every form—especially not on forms that ask questions you are likely to have an answer to right away. Only when forms require a significant time investment, like online surveys, or when people might get frustrated when getting halfway through a form only to discover some obscure piece of information is preventing them from finishing, should you consider using start pages to help illuminate a clear path to completion.

Clear Scan Lines

While your first inclination when thinking about illuminating a path to completion in a Web form may be to tell people where they are within a multiple Web page form, I'd like to focus first on an even more basic, but often forgotten consideration: providing a clear scan line from start to finish.

Figure 3.3 shows eye-tracking data for a simple form that highlights the importance of a clear scan line. In this example, the strong vertical axis of labels, input fields, and a primary action button provides a single path through the form. This allows people to respond quickly to questions and complete their task with a minimum number of diversions.



FIGURE 3.3

A composite eye-tracking image (heat map) from Etre (www.etre.com) showing what people look at when filling in a simple Web form.

To illustrate this point further, consider the difference between the two PayPal checkout forms in Figure 3.4. One has a clear scan line that starts at the first information point, ends at the primary action, and allows people to take in all the information they need to review quickly. The other has a number of different visual treatments that break up the path to completion into a series of zigzagging eye movements. A single path makes it easier to process the questions a form is asking through a consistent layout.

The top form is a PayPal confirmation page titled "Jason, please confirm this secure transaction". It displays "You're about to send \$37" to "lucky@37signals.com". It includes fields for "Email" and "Shipping Information". The bottom form is a "Check Payment Details" page, also titled "Secure Transaction". It displays "Pay To: paypal.jf@spinfree.com" and "Amount: \$37.00". It includes fields for "Payment Details", "Shipping Information", and "Payment Method". Both forms have a "Send the \$37" button at the bottom.

This, in turn, can increase completion rates by keeping people on task and ensuring that they see and respond to all the questions a form asks them.

FIGURE 3.4

Although the top form design includes some meaningful distinctions between content, the bottom PayPal form provides a clear path to completion because people can simply follow a straight line down.

A well-designed scan line has just the right amount of visual spacing between questions to enable an even pace between each label/input pair (see Figure 3.5). In other words, it allows people to move comfortably through the form without missing any important information. The right amount of spacing depends a lot on the style of your form, but generally about 50 to 75 percent of the height of an input field between each question works best.

FIGURE 3.5
A well-paced flow between questions requires adequate spacing between questions.

Primary Phone Number ext.

Email Address

Confirm Email Address

We're not big on spam. You can always change your email preferences after registration.

Minimal Distractions

To keep people focused on completing a form, you also should consider which Web site elements help illuminate a clear path to completion and which elements distract from it. Even though the consistent navigation, header, or promotions that make your Web site great are appropriate on most of your site's pages, they may not be appropriate on your forms. These additional elements can be a distraction at best and a detour at worst, particularly for critical forms like checkout in ecommerce sites or registration in social applications.

Removing interface elements not directly related to completing a form helps keep people on task and removes paths to abandonment. The difference between checkout and shopping on Amazon.com shown in Figure 3.6 is stark. Even the site's logo, which usually allows people to return to the Amazon home page, is deactivated to minimize ways off this crucial form.



amazon.com. SIGN IN SHIPPING & PAYMENT

Enter a new shipping address.
When finished, click the "Continue" button.

Full Name:

Address Line1:
Street address, P.O. box, company name, etc.

Address Line2:
Apartment, suite, unit, building, floor, etc.

City:

State/Province/Region:

ZIP/Postal Code:

Country:

Phone Number:

Is this address also your billing address (the address that appears on your credit card or bank statement)? ☒ Yes ☐ No (If not, we'll ask you for it in a moment.)

Continue

FIGURE 3.6
While Amazon.com may merchandise its categories and specials through its Web site, once you are in checkout, there are no frills.

Progress Indicators

When the questions that need to be answered before a Web form is complete are spread across multiple Web pages, it may be useful to communicate the status of people's progress through the form.

To illustrate this, let's return to the example of buying a house online. Years of realtors, lenders, buyers, sellers, and lawyers have added numerous clauses, considerations, and decisions to the proceedings. As a result, any form trying to enable home purchases online is going to have to account for a large quantity of required answers. The obvious first step is to organize the form into meaningful content groups. The next step is to illuminate a path to completion through these groups.

In addition to clearly labeled section headers, the Redfin form for buying a house in Figure 3.7 includes an overview of the number of Web pages involved (scope), an indication of what page you are on (position), and a way to save and return to your progress (status).

FIGURE 3.7
Redfin provides multiple progress indicators that indicate scope, position, and status information.

Though closely integrated, these three progress indicators perform different functions. The listing of the total number of pages gives people a sense of the *scope* of this form: How long will it take to complete and what are the different sections/steps? The indicator of current *position* lets people know

where they are relative to the entire form. The form *status* indicates whether the offer was submitted or not and when it was last saved. For long forms, providing the option to save or doing so automatically is a great way to keep people on a path to completion.

While it's certainly a good idea to let people know how far along in a process they are, you need to be wary of progress indicators that incorrectly represent the number of Web pages or steps required to complete a form. An all too common practice for forms spanning multiple Web pages is the inclusion of a progress indicator that does *not* accurately mirror the number of pages a form requires.

FIGURE 3.8
Fidelity.com features a two-level progress bar letting you know where you are in the process of filling in a long form. However, it disappears on step one (login), which is not included in the list of steps required.

In this Fidelity Investments example in Figure 3.8, the number of pages of inputs required to apply for an account online is outlined in a detailed progress indicator. However, as soon as someone selects “Next,” a page not included in the process (Log In) appears.

This illustrates an all too common problem with progress indicators. They promise a series of well-defined, linear steps but rarely deliver. Consider a typical ecommerce checkout form like the one in Figure 3.9 on Half.com. The progress indicator states that there are three pages of inputs you can expect: shipping, billing, and place order. When it comes time to select a shipping address, however, page one is selecting from an existing list of shipping addresses. If the address you want to ship to is not listed, an additional page is required, and you need to add a new address. All of a sudden, step one becomes two steps. When selecting billing in step two, you may need to verify an online payment service provider, log in to its site, select a source of funding, or provide a new billing address. Now step two is four steps.

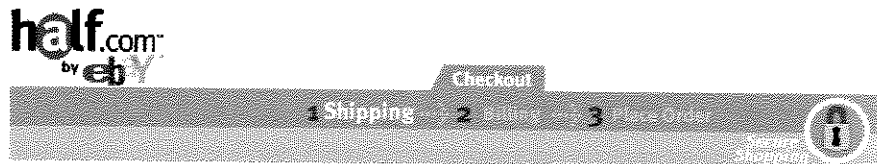


FIGURE 3.9

The three steps promised by Half.com can easily become many more.

So we've taken six steps to accomplish what we told our customers was going to take two steps. It's not that giving people a sense of how many steps are required is a bad thing; but we are rarely telling them the truth. One solution is to avoid the progress indicator altogether and just get people through the form as fast as possible. The other is to provide a more high-level progress indicator that does not set expectations explicitly.

The Amazon.com checkout process in Figure 3.10 makes no explicit promises about the number of steps. Instead, the progress indicator outlines the types of information you'll need to provide. Although some people

could interpret these categories as separate pages, no specific expectations are set. People get a general sense of the kinds of information they'll need to provide and where they are in that process.



FIGURE 3.10

Amazon does not promise any number of pages, just a high-level set of tasks.

Perspective: Peter Wallack Accessibility Program Director, Oracle Designing Accessible Forms

For many disabled users, the virtual world of the computer eliminates most of the barriers of the physical world, but it's up to you, the Web page designer, to enable it. An accessible form takes into account the unique needs of users who have limited or no vision, limited or no hearing, limited physical movement, or cognitive impairments. Statistically speaking, there's a 25 percent chance that could be any one of us at some point in our lives!

Many disabled users will operate Web pages with additional hardware or software called “assistive technology” (AT), such as a screen reader or a Braille printer. It's important that you design with the proper content and structure in the first place, and then let the AT communicate with the user. Here are some areas where your design solutions that you make for accessibility purposes will benefit other users as well:

- Closed captioning of multimedia helps when you are watching TV in a noisy environment such as a restaurant, gym, or airport.
- Keyboard-only access is great for “power users,” who find reaching for the mouse slows them down.
- When running over slow networks, some people disable the rendering of images, relying on the alternate text associated with those images instead.

Perspective: Peter Wallack (Continued)

One more reason to care—if you post your Web site in a public place, or if it is used by an employee of some company, or if it is sold to a government, there are probably laws that demand it be accessible.

At the heart of accessibility is usability. For example, a page that isn't usable to begin with won't stand a chance of being accessible. Think of accessibility as first requiring "uber-design":

- **Uber-minimize the pain:** The process of completing forms should be ridiculously easy and simple, so that someone with memory issues or attention span problems can get through it.
- **Uber-illuminate a path to completion:** Make it abundantly clear how people can accomplish the goal, so that a person listening to the screen can "get it" quickly without needing to hear every last character on it.
- **Uber-consider the context:** Some disabled users may be using sip-and-puff devices to type characters, so don't require them to type in novels!
- **Uber-ensure consistent communication:** A consistent presentation across all the pages makes life easier for those using a keyboard only, those using a screen reader, those with low vision, those with cognitive disabilities...everyone!

Once you adhere to these principles, the best guidelines for accessibility come from the Web Content Accessibility Guidelines (WCAG) produced by the W3C (www.w3.org/TR/WCAG10/) and the U.S. Section 508 Federal Procurement laws (www.section508.gov). Here is a brief summary of the most important accessibility requirements to consider in your forms:

- Specify text for everything that is not just fluff. This includes
 - ❖ Alternative text for images (like Tooltips).
 - ❖ Summary tags for tables (a brief summary of the contents of a table).

Perspective: Peter Wallack (Continued)

- ❖ Labels that are "implied" by their physical relationship to other objects. For example, address fields are often unlabeled because the relationship of address, city, state, and zip code is implied. To be accessible, each needs its own label, although that label can be hidden.
- ❖ Titles for frames and pages. Make them meaningful and unique.
- Make all links on a page unique, unless they really do the same thing. And give them meaningful labels that make sense out of context, as opposed to the dreaded "Click here."
- Do not use color as the only way to convey information. For example, if you color a row in a table red to indicate that something is in error, also provide a column that shows the word "Error."
- Ensure good color contrast, especially between text and backgrounds. And be aware that color-blind users cannot distinguish between certain colors. The best solution is to allow users to select colors themselves. (By the way, it's not that things are "invisible" to color-blind users; they just cannot distinguish the difference between certain colors, like red-green and blue-yellow.)
- Make font sizes large enough to read. Again, the best solution is to allow users to select their own fonts and sizes, which also means that your page has to be designed so that it scales well with large fonts, up to at least 14-point.
- Do not use gratuitous animation, as it can distract people with ADD.
- Avoid anything that flashes more than three times per second. If a user has epilepsy, this can cause an attack.
- There must be a way to accomplish all functionality on the page with the keyboard only. So if you have designed some fancy drag-and-drop interface, you must also provide a way to perform the same task without the mouse. Don't let this prevent you from doing the fancy stuff, though, since that's so much fun.

Perspective: Peter Wallack (Continued)

- Use clear and precise language. Also, choose your words carefully—don't refer to "the button on the right" or the "button with the green arrow." Only refer to objects by their name or function, not their physical characteristics.
- If there are timing aspects of the product, allow the user to turn them off, adjust them, or extend them. For example, if the product imposes a timeout for security or performance reasons, allow the end-user to extend it without losing any work.
- Consistency matters! Use images and text consistently across all pages of your site.
- If you convey information visually on the page by means of layout, it must also be coded that way. For example, if you show a hierarchy of data by using indentation, the same information must be available in semantic markup so that AT can interpret it. If that doesn't make any sense to you, just tell the person actually coding the page that it's his responsibility.
- Provide a way for a keyboard-only user to skip repetitive content at the top of each page. No matter how elegant you've made your navigation scheme, if you have to use the Tab key to wade through it on every page, your users will really hate you.
- Ultimately, though, there is one recommendation that dwarfs all of these: Test your page with your intended users, including those who have disabilities.

Tabbing

Every time I talk about Web form design, I always ask the audience how many of them use the Tab key on their keyboard to move between the input fields of a form they are filling out. Every time, more than half the audience raise their hands. Based on this information alone, it's a good idea to consider how people will tab between inputs to complete your form.

Consider the registration form from Office Depot in Figure 3.11. When someone is moving between input fields using the Tab key, he is likely to have a pretty jarring experience as he moves from the bottom of one column to the top of the next column. This experience would be even more

disorientating in a small browser window when your last input field now sits offscreen. It also doesn't help that the first input field at the top of the second column is a single checkbox surrounded by text. This rather small input field is not that noticeable when highlighted, so a person might be a bit confused about his current position when he tabs to it. Even within the Payment Info section, the tabbing order could be unclear as he jumps between multiple rows and columns. After he specifies Payment Type, is he going to Credit Card Number next or going to Credit Card Type?

The screenshot shows a multi-column registration form. The 'Billing Info' section contains fields for Business Name, First Name, Middle Initial, Last Name, Address Line 1, Address Line 2, City, State, Zip Code, Country, Phone Number, Fax Number, and Billing Email. The 'Shipping Info' section has a 'Same as Billing' checkbox and similar fields. The 'Payment Info (optional)' section includes Payment Type (Credit Card), Credit Card Number, Credit Card Type, and Expiration Date. The 'Create Your Login and Password' section has fields for Login Name, Password, and Password Confirm, with a 'Yes, please log me in automatically' checkbox. A 'CREATE ACCOUNT' button is at the bottom right.

FIGURE 3.11
Tabbing through inputs on the Office Depot registration form could result in a lot of page jumping when changing columns.

By highlighting this example, I'm not saying that all two-column forms are poorly designed. However, I am pointing out that Web form designers should consider what the experience will be like for the large numbers of people who move between input fields using the Tab key, and they should design accordingly.

When I described the experience of filling out the Office Depot form previously, I assumed that the developers had specified an explicit order for the form using the "tabindex" HTML attribute. While the nuances of form development are beyond the scope of this book, it is useful for designers to know that forms that don't provide an explicit order to their inputs using tabindex will simply be tabbed through in the order they appear in the HTML markup. What that means is to avoid any existential jumps between input fields, it's a good idea to talk to a developer about specifying the order in which inputs should be accessed.

Best Practices

- Ensure that the titles of your forms match people's expectations and succinctly explain what each form is for.
- For forms requiring substantial time or information requiring look-up, use a start page to set people's expectations.
- Make sure that you illuminate a clear path to completion through a form by using clear scan lines and effective visual pacing that comfortably takes people from start to finish.
- For mission-critical forms like checkout or registration, remove distractions and any links or content that may lead to form abandonment.
- For forms with a known sequence of multiple Web pages, include progress indicators that communicate scope, status, and position.
- For forms without a clear sequence of pages, do not include progress indicators or use more general progress indicators instead of those that set incorrect expectations.
- Consider the experience of "tabbing" through a form when making form layout decisions.
- Use the "tabindex" HTML attribute to control tabbing order through a form.

CHAPTER 4

Labels

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