# The Design of Forms

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.

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[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

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.

**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: | in college/graduate school<br>at a company<br>in high school<br>none of the above |
| 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.

Register Now!

**FIGURE 1.1** 🐘 http://www.flickr.com/photos/rosenfeldmedia/2366423465
**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**
🐘 http://www.flickr.com/photos/radiofree/150535853

**FIGURE 1.2**
**When you're shopping in a local store, checkout usually comes with a smile.**

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.

### 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.

**FIGURE 1.3**

top image: http://
www.flickr.com/photos/
rosenfeldmedia/2366423729

bottom image: http://
www.flickr.com/photos/
rosenfeldmedia/2366423541

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

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



**FIGURE 1.4**   http://www.flickr.com/photos/rosenfeldmedia/2366424337
Unpacking a new Apple MacBook Pro is a tactile, engaging
experience that reflects the quality of the product inside.

well thought out. Perhaps the most personal moment comes when the computer offers to take your picture to represent your account.

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**
top image: http://www.flickr.com/photos/rosenfeldmedia/2367262662
botom image: http://www.flickr.com/photos/rosenfeldmedia/2366424417

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).

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.

## FIGURE 1.6
top image: http://www.flickr.com/photos/rosenfeldmedia/2367263846
bottom image: http://www.flickr.com/photos/rosenfeldmedia/2366428127

California voter registration offline and online—it's all just 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** 🐘 http://www.flickr.com/photos/rosenfeldmedia/2366428239
**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

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[2]  This paper can be found at: http://portal.acm.org/citation.cfm?id=986078&dl=portal&dl=AC M
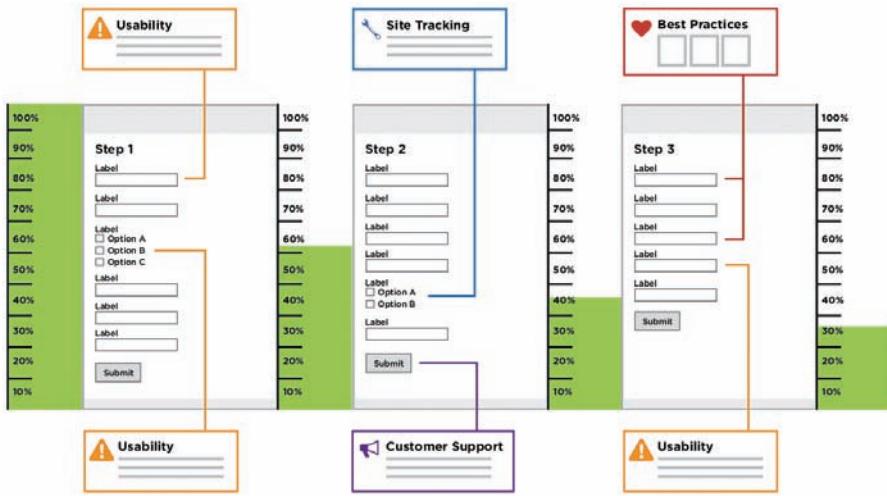
eBay user experience and design team. Their registration redesign had such a positive impact on the bottom line of the company that it became a model for how design projects were evaluated and funded.

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).

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

**FIGURE 1.8** 🐘 http://www.flickr.com/photos/rosenfeldmedia/2367264212
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.

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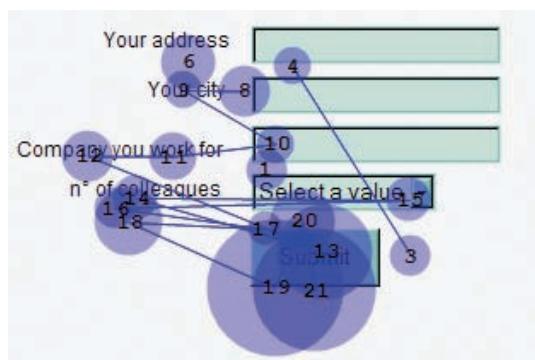
**Customer Support:** Knowing the problems reported by users when filling in forms can help isolate issues and ways to resolve them.

- 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).



**FIGURE 1.9** 🐘 http://www.flickr.com/photos/rosenfeldmedia/2366440213
**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.**

- 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 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.

**e-Commerce | Checkout Flow: Page Comparison**

| | Page 1 | Page 2 | Page 3 |
|---|---|---|---|

Row labels: Half, Land's end, LL Bean, Macy's, Walmart, Office Depot, Sears, Amazon, B&N, Best Buy, Circuit City, Gap, Eddie Bauer

Column labels (repeated for each page): Sign-in, Personal info, Item List + total, Billing info, Shipping info, Shipping Method, Credit Card, Other payment, Gift options, Delivery instructions, Account creation, Live help, Marketing opt-in / out, FAQ, Agree to terms, Final commit, Customer Service, Order confirmation, Trust Marketing

Legend:
- X = Included on page
- O = Review but not edit
- X = Final commit

**FIGURE 1.10** http://www.flickr.com/photos/rosenfeldmedia/2366423377
**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.

## Perspective: Jared Spool (Continued)

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.

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.

## Perspective: Jared Spool (Continued)

(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.*"

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.

# Form Organization

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.

**Perspective: Caroline Jarrett (Continued)**

## 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 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.

## Perspective: Caroline Jarrett (Continued)

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.

### 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.

| Field | Link |
|---|---|
| * Preferred content: Yahoo! U.S. | http://www.flickr.com/photos/rosenfeldmedia/2366424557 |
| I prefer content from Yahoo! U.S. in English | http://www.flickr.com/photos/rosenfeldmedia/2366424481 |
| * Birthday: [Select a Month] dd , yyyy | http://www.flickr.com/photos/rosenfeldmedia/2367260500 |
| Birthday – Select Month – Day Year | http://www.flickr.com/photos/rosenfeldmedia/2367260436 |

**FIGURE 2.1**
Two ways conversational language can clarify questions. "Day" and "Year" vs. "dd" and "yyyy"; "Preferred content" vs. "I prefer content from."

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 termed "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.

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



FIGURE 2.2 http://www.flickr.com/photos/rosenfeldmedia/2367260580
The new Yahoo! registration form uses a conversational tone to
engage new members.

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

**FIGURE 2.3** http://www.flickr.com/photos/rosenfeldmedia/2366424765
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.

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.

In certain situations, several sections with lots of questions may need to be asked in sequence because they don't make sense out of context. People need to see all the questions together in order to answer each. In this case, one long Web page may very well be the best answer.

In other situations, some sections will perform best after a form is completed. For instance, optional marketing questions such as "How did you first hear about us?" or "Would you like additional information about our services?" may actually get higher response rates when asked after someone has competed a form. In one redesign I've seen, asking these questions after a registration form was filled out increased answers by almost 40 percent! The reason behind this may be that optional questions feel less invasive when presented as follow-up topics instead of requirements for form completion.

Because your forms aren't alone on the Web, another way to decide how to structure your conversations with customers is to conduct a

Web conventions survey to see if any patterns emerge. A Web conventions survey is simply a comparison of design solutions across a number of similar Web sites. It usually helps to look at the top performing sites in a specific category (like ecommerce) to ensure that the sites being compared share common measures of success.

A Web conventions survey may lead you to uncover common form organization structures that have emerged on the Web. For instance, mapping out what information is asked in ecommerce shopping cart forms (see Figure 2.4) reveals some interesting insights. The first page tends to be Sign In; the second, personal information. After that it's usually shipping preferences. And so on.

**e-Commerce | Checkout Flow: Page Comparison**

Legend:
- X  Included on page
- O  Review but not edit
- X  Final commit

| | Page 1 | | | | | | | | | | | | | | | | | | | Page 2 | | | | | | | | | | | | | | | | | | | Page 3 | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sign-in | Personal info | Item List + total | Billing Info | Shipping info | Shipping Method | Credit Card | Other payment | Gift options | Delivery instructions | Account creation | Live help | Marketing opt-in / out | FAQ | Agree to terms | Final commit | Customer Service | Order confirmation | Trust Marketing | Sign-in | Personal info | Item List + total | Billing Info | Shipping info | Shipping Method | Credit Card | Other payment | Gift options | Delivery instructions | Account creation | Live help | Marketing opt-in / out | FAQ | Agree to terms | Final commit | Customer Service | Order confirmation | Trust Marketing | Sign-in | Personal info | Item List + total | Billing Info | Shipping info | Shipping Method | Credit Card | Other payment | Gift options | Delivery instructions | Account creation | Live help | Marketing opt-in / out | FAQ | Agree to terms | Final commit | Customer Service | Order confirmation | Trust Marketing |
| Half | X | X | | | X | X | | | X | X | | | | | | | | | | X | X | O | X | | | X | X | | | X | | | | | | | | X | | | O | | O | X | X | | X | | X | | X | | X | X | | | X |
| Land's end | X | X | | | | | | | | | | | | | | | | | | X | | | X | X | | | | | | | | | | | | | | X | | | O | O | O | X | X | | X | | | X | | | | X | | | X |
| LL Bean | X | X | | X | X | | X | X | X | | | | | | | | | | | X | | O | | | X | O | | | | X | X | X | | | | | | X | | | O | | | X | X | | | | | | | | X | | | |
| Macy's | X | | | X | X | X | X | X | X | X | | | | | | | | | | X | | O | O | O | X | X | | | | X | | | | | | | | | | | O | | | X | | | X | | | X | | | | | X | | |
| Walmart | X | | | | | | | | | | | | | | | | | | | X | | O | | | | | | X | | | | | | | | | | | | X | X | X | O | X | | X | | | | | | X | | | X | X |
| Office Depot | | | | | | | | | | | | | | | | | | | | X | | O | | | | | X | | | | X | X | | | | | | X | | | | | | | X | X | | | | | | | X | | | |
| Sears | | X | | | | | | | | | | | | | | X | | | | | | O | | | | | | | | | | | | | X | | | | | X | | O | | X | X | | X | X | | | | X | | | X |
| Amazon | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B&N | | X | | | X | | | | | | | | | | | | | | | X | X | O | O | O | | O | | | | X | X | | | | | | X | X | | X | O | O | | X | | | | X | | | | | | | X | X |
| Best Buy | X | | | X | X | X | X | X | | | | | | | | | | | X | X | X | O | X | | X | O | | | | | | | | | | | X | | | | O | | | | | | X | | X | | | | | X | | X | |
| Circuit City | | X | | | | X | | | | X | | | | | | | | | X | | X | O | X | X | | X | | | | | | | | | | | | | X | | O | X | X | X | X | | | | | X | | | | | X | | |
| Gap | X | X | | X | X | | X | X | X | | | | | | | | | | X | X | X | O | | | X | | | | | | | | | | | | | X | | | | | | X | | | | X | | | | | | | | | X |
| Eddie Bauer | X | X | | | | | | | | | | | | | | | | | | X | X | O | X | | | | | | | X | | | | | | | | X | | | O | O | O | X | | X | | | | | | | X | | | X |

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.

**FIGURE 2.5**  🐘 http://www.flickr.com/photos/rosenfeldmedia/2367260810
**Many distinct visual elements on this form get in the way of seeing the questions the form is asking.**



**FIGURE 2.6**  🐘 http://www.flickr.com/photos/rosenfeldmedia/2366425019
**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 placement[1] 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.

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

**FIGURE 2.7** 🐘 http://www.flickr.com/photos/rosenfeldmedia/2366424971
**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.**

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

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



**FIGURE 2.8** 🐘 http://www.flickr.com/photos/rosenfeldmedia/2366425057
**The addition of excessive visual elements can distract from a form's primary content: and interrupt the scan line of a form.**

box created by each combination of line and background color.

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.

**FIGURE 2.9** http://www.flickr.com/photos/rosenfeldmedia/2367260984
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.

## Best Practices (continued)

- 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.

## Best Practices (continued)

- 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.