# **Chapter Four**

# **BULLETPROOF FORMS**

Create friendly forms that are easy to complete

### Guidelines covered in this chapter

- 8 Highlight either required or optional fields.
- Accept entries in all common formats.
- Provide sample entries, pull-downs, and formatting hints to ensure clean data.
- 11 Explicitly state limits to characters, number of entries, and so forth.
- If customers can't choose it, don't show it.
- 13 Validate entries (as soon as possible).
- Button up: Eliminate the Reset button and disable the Submit button after it's clicked.
- (15) Assist form dropouts by saving information.

## INTRODUCTION

Forms are a hassle. "Invalid" responses, confusing choices, and unacceptable entries constantly gum up the works. It's no wonder that many busy surfers simply give up when faced with forms. Here's what you can do to help.

### Highlight either required or optional fields

Whether it's because they are reluctant to share information online or just in a hurry (or both), many people give up on forms that ask too many questions. That's why your forms must clearly state which fields are required and which ones are optional. Sites often use one or more of these techniques to highlight fields:

- An asterisk (or other icon) next to the field
- The word "Required" or "Optional" next to the field
- · Required field titles in boldface

Try to minimize the number of required fields whenever possible. You'll still get the information you need but you'll also let customers decide whether it's worth the time to provide extra data. If you don't identify required fields, customers may become frustrated when told that an unmarked field is actually mandatory. They may even bail out of the process completely.



	Your Account: Create an Account U.S./Canada Billing Address  Complete this form to become a registered client at Victorias/Secret.com. Simply sign in before shopping, and all the borneffits will be available to you, including faster checktout and incurrious gift services.
	Please enter your billing address. >Non U.S./Canada biling address? click here. >Niany A.O.Pofe biling address? click here. What name would you like us to use to welcome you?
	First Name MI Last Name Street Address (Example: 1234 East Main Street Apt.1)
	care Of or Business Name (Optional)
	U.S. State or Territory/Canadian Province  ZIP/Postal Code  ZIP/Postal Code  Evening Phone (Optional)  Evening Phone (Evening Phone (Optional))
	E-Mail Address  Confirm E-Mail Address  Gender (Optional) select one
	Construction of the Constr
	Select one 2  Heavy our purchased from Victoria's Secret Stores within the past Year?  Select one 2
	to you shop Victoria's Secret for yoursel??  Select one   Do you shop Victoria's Secret for gifts for others?
	select one \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	namental and the balance because because and much man

This "Create an Account" page at Victoria's Secret isn't as clear as it could be. Required fields, such as "Name" and "City," are not clearly indicated. And although some fields are tagged as optional (for instance, "Business Name" and "Evening Phone"), the site neglects to mention that the marketing questions at the end (for instance, "Do you currently receive Victoria's Secret Catalogue by mail?" and

"Do you shop Victoria's Secret for yourself?") aren't actually required (you can skip them and still successfully create an account).

It would be better for the site to avoid the impression that these questions are mandatory when they're not. Otherwise, customers who don't want to share this sort of personal information may decide the process isn't worth the effort.

So how should you mark required fields? Use an asterisk or other clear icon to indicate which fields are must-haves.





The Washington Post uses a red asterisk to indicate the fields that must be completed. This means customers don't have to wonder, "Can I skip this field without causing problems?"

### Accept entries in all common formats

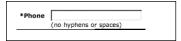
How do you enter a phone number? Do you use dashes, parentheses, spaces, no spaces?

How about credit cards? Do you follow the formatting on the card (with spaces) or do you write it all as one long number without spaces?

For dates, do you use dashes or slashes to separate the date? Two-character years or fourcharacter years?

The fact is people will use different data formats at your site. That's why your forms should accept entries in all common formats. This saves customers the headache of trying to figure out which format is required.



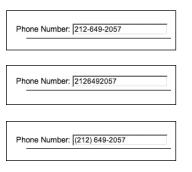


Nordstrom's site only accepts phone numbers in this format: 2125554389. Although the site does at least offer advice on this restrictive format with its "no hyphens or

spaces" message, a better solution would be to go ahead and accept all common formats. The site also should allow 212-555-4389 or 212 555 4389 or 212.555.4389.



www.kbtoys.com



KB Toys accepts phone numbers regardless of which entry style is chosen. That means one less barrier facing shoppers.



www.aol.com

Evening Phone: (212) 543-6587

AOL's signup form automatically converts phone numbers into the proper format. I entered "2125436587" and the site's form, via JavaScript, automatically translated it

to (212) 543-6587 while I was typing. By automatically reformatting the number into an acceptable entry, AOL removes any possibility for formatting errors.

\* credit card number: 6011472654872213

\* credit card number: 6011 4726 5487 2213

Credit card numbers with or without spaces are accepted at the Zagat site. There's no need to put up an unnecessary roadblock when customers are trying to give you money.

Provide sample entries, pull-downs, and formatting hints to ensure clean data

Few things frustrate a form-filler more than being told an entry needs to conform to certain standards after the form is submitted. Give visitors a break by being upfront about acceptable parameters. Use sample entries, pull-downs, and formatting hints to avoid a breakdown. These tools will minimize confusion and help people quickly complete forms. This guideline will show you how to use these techniques to ensure that data is properly formatted:

- Limit the range of entries.
  - Use HTML form elements to ensure valid submissions.
- Give formatting examples.
  - Provide correct sample entries to prevent confusion.
- · Form guidance.
  - Use form layout to guide people in the right direction.



. From Date is an invalid date. Enter a valid date Click the Back button on your browser to return to the previous screen

I entered "7/2/03" as a date at E\*Trade, but this message informs me that this is an "invalid date." Unfortunately, E\*Trade never explained the proper way to enter the

date prior to entry or why the date entered was invalid (impossible date, bad format, or so on) after entry.

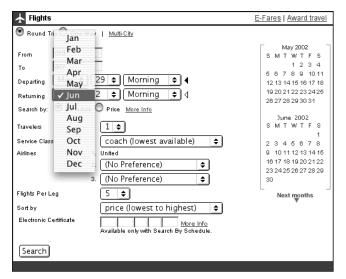
Even worse, E\*Trade's error message still doesn't tell me the right format to use. Should it be 7-2-03 or 07/02/03 or something else? E\*Trade's unspecific response is an invitation to additional frustration. The site should clearly indicate the proper date format to use.

### Limit the range of entries

Open-ended text fields leave plenty of room for error. When given free range, visitors often wind up submitting entries that are unacceptable for one reason or another.

How can you make sure visitors stay between the lines? Pull-downs, list boxes, and check box lists can limit the range of entries to only those who you deem acceptable. These tools provide a nifty way to nudge customers in the right direction.





There's no way to enter an invalid date at United's site because of the pull-down menus used for date selection. This simple technique prevents mistakes and keeps visitors on track. Pull-downs are also used to ensure acceptable responses for the number of travelers, service class, flights per leg, and other fields.



www.deepdiscountcds.com

* Payment Metho	d *C	redit Card Number * Ex	piration Date
Visa	\$ 43	75 2145 5687 02	2 \$ 2005 \$
		ered exactly as it appear delays in processing you	rs on your credit card statement. Please check your ir order.
	* First Name John	M.I.* Last Name	* Phone Number ( 312 ) 555 - 4568
* Address Line 1 2323 Lasalle Dr. Address Line 2			
* City State		Zip	
Chicago Illino	is	<b>\$</b> 60657	
* Country:			
United States		<b>□</b>	

DeepDiscountCDs uses pull-downs to keep credit card type, date of expiration, salutation, state, and country data accurate. This improves the odds that I will successfully complete the form on the first try.

# Give formatting examples

If you don't use HTML form elements to limit entries, make sure you explicitly tell visitors the correct format to use.

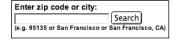


What date format should I use at Expedia? The hint "MM/DD/YY" makes it obvious. Should I use hyphens for my Social Security number at E\*Trade? Yes, according to their format hint. Without this information, I would be forced to guess the acceptable formats.





weather.yahoo.com and www.citysearch.com



Yahoo! Weather and Citysearch both provide examples of proper search submissions. This lets me know what a



"good" entry looks like and increases the odds of a successful search.

## Form guidance

Alternatively, you can also use the structure of your form to make sure people don't make mistakes.



www.dell.com



What's the right way to enter a phone number at Dell? The site uses separate text boxes to eliminate any doubt. This greatly reduces the possibility of making a mistake.

Explicitly state limits to characters, number of entries, and so forth

Too many sites give speeding tickets without ever posting speed limit signs. If there is only a narrow range of acceptable characters or entries (for example, a text box with a limit of 20 characters or a field that allows a maximum of 10 emails), make sure you clearly explain the limit. Frustration is sure to ensue if you're not upfront about the limits visitors need to conform to in order to succeed.





Yahoo! Mail won't send my message because the "Bcc field contains too many addressees." Unfortunately, Yahoo! doesn't tell me how many addressees I can submit. I have to guess and guess

again to get the right number. It's a frustrating process that takes too much time to figure out. Obstacles such as this make me want to find a new group mailing list provider.

### As if...

Why is this bad? It's as if I try to buy 20 tickets to a sporting event but the ticket office refuses me because there is a limit on the number of tickets an individual can buy. The really frustrating part is that the ticket office won't tell me the actual limit! Instead, I have to keep guessing until I hit a number below the maximum.

A similar process occurs when a site requires a limit to the number of characters in a form field. Customers carefully word their entries, so it's essential that you communicate, at the point of entry, the allowable amount of text.



ADD A NEW ADDRESS		
Please complete all fields on the form before continuing.		
Address Exceeds Maximum Allowable Length		
First Name: Last Name: Address Line 1: Address Line 2: City:	JASON FRIED 37SIGNALS 314 WEST INSTITUTE F CHICAGO	

CDNow tells me my "Address Exceeds Maximum Allowable Length" but doesn't tell me the actual maximum length I can use. As a result, I'm left with the tedious trial-anderror method as the only way to determine how much text is allowed. Plus, who uses language such as "exceeds maximum allowable length?"

#### From the customer...

"Another painful example of this is HotJobs.com. They have a limit on the amount of characters your resumé can contain. (They have a resumé builder tool.) This is annoying for various reasons: 1) I don't want to shorten my resumé. 2) They don't tell me how far over the limit I am when posting. I had to go through about 10 iterations before getting it right. Annoying!"

Your visitors need to know about these sorts of restrictions before they waste time crafting unacceptable entries. Be forthright about any limits and place this information at the point of data entry.

It's also a good idea to offer a countdown feature and use the "Maxlength" attribute (more to follow on this) to cap the number of characters that can be entered in the field. If customers do enter too much text, make sure you clearly explain the problem and how to fix it.



Headline (maximum 25 characters) I can't type more than 25

Google helpfully informs me of the maximum number of characters I can enter. The site also uses the Maxlength attribute, so I'm unable to enter more than 25 characters.

### Tech info

#### Maxlength

Use the Maxlength HTML attribute to specify the maximum number of characters a text entry box can accept. This ensures that a customer won't be able to enter too many characters. Here's an example for how to limit entries (to 50 characters in this case):

<input type="text" name="fieldname" maxlength="50">

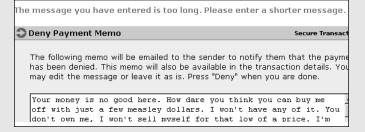
# **HEAD TO HEAD**

# Message Limits

My message is too long.



www.paypal.com



Paypal tells me my message is too long and asks me to enter a shorter message. Unfortunately, the site waits until *after* I submit my entry with too much text before even telling me a limit exists.

Then, the site neglects to tell me the actual limit. The only choice I have is to guess. I remove a few words and submit the text again. Still too much. I remove a few more words and try again. Still too much. Finally, I give up.



www.sprintpcs.com



SprintPCS tells me there is a limit of 160 characters for messages. As I start typing, the number in the "Remaining Characters" box counts down to zero. When I hit the maximum, the site

prevents me from entering more text and displays a JavaScript alert that says, "Maximum message length reached. Your message has been truncated at 160 characters."

What's nice is that SprintPCS is upfront about the maximum message length and clearly tells me the limit. The helpful countdown feature also gives me instant feedback on how much additional text I can type. Finally, the site stops me when I reach the text limit and tells me why. This approach prevents mistakes and keeps messaging quick and efficient.

If customers can't choose it, don't show it

Another way to make life easier for your customers is to eliminate unavailable options (a.k.a. prevalidation). If I can't choose an entry, don't show it to me in the first place.



There are errors in your submitted data. The value of the "Ending year" field is too large. It must be at most 2002. May \$ 1 2002 \$ Start my ads running on (MM/DD/YY): Stop my ads on (MM/DD/YY): Dec | \$ | 31 | 2003 | \$

I'm choosing the date to stop running an ad on Google. 2003 is listed as one of the year options. (In fact, it was the default selection.) When I choose a date in 2003, however, the site informs me that 2002 is the latest year I can select.

It's frustrating to select a default option and then find out it's invalid. If I can't go past 2002, Google shouldn't even present 2003 as an option.



# **Ticketmaster**

WHY NOT TELL ME IT'S SOLD OUT?

www.ticketmaster.com

# ticketmaster We are unable to fulfill your specific request. We may not have the type of tickets you requested or the number of seats together that you are looking for.

If you are unable to find tickets, be sure to check back often. As the date of the event nears, many times a

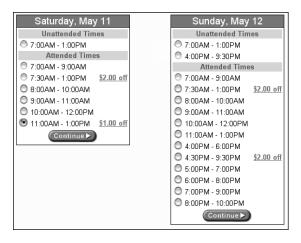
©2001 Ticketmaster. All rights reserved

I tried to buy tickets to a sold-out concert at Ticketmaster. Unfortunately, the site never actually told me the show was sold out. Instead, it displayed the show's information and let me select tickets before it actually spilled the beans that tickets for this event were not available.

Even then, this ambiguous error message still leaves me scratching my head. If Ticketmaster knows the event is sold out, then why not just say so? It's no wonder customers wind up ticked off at the ticket behemoth.

#### From the customer...

"Ticketmaster.com is a case study in how *not* to create an online service... Why can't it just tell me there are no tickets available for a particular event? Instead it keeps prompting you to try different combinations of quantity and location because you figure if it doesn't indicate that it's sold out, there must be at least one little ticket waiting to be found."



Peapod normally offers a range of delivery times throughout the day. On Saturday, however, the grocery service only has a limited number of slots available. Instead of displaying Saturday's later time slots that can't actually be chosen, the site shows only the times that are valid selections.

This is helpful because I don't want to select a time slot and then find out it's unavailable. By preventing this sort of wrong turn, Peapod prevents backtracking and gets me one step closer to checkout.



www.easyjet.com



Here, EasyJet eliminates invalid airport options. Selecting Athens as my "From" point automatically filters the options in the "To" field to display just "London Luton," the one destination available from Athens. After all, it's easyJet that knows exactly where their planes fly, not their customers.

Validate entries (as soon as possible)

You can improve conversion rates and make customers' lives easier by validating form responses on the spot. Check to make sure that email addresses contain an at sign (@) and no spaces, numbers are actually numbers, and other fields are filled in with acceptable responses.

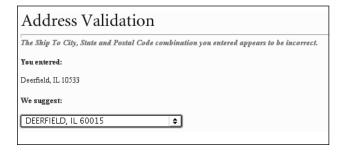


I entered an invalid email (".og" rather than ".org") along with an impossible city/state/zip combination (that is, the city is New York, the state is Alaska, and the zip code is in Illinois) at AOL's sign-up page. Yet AOL accepts all this information

and allows me to continue with the sign-up process. Instead, the site should validate entries such as these to make sure that my email address is properly formatted and that the city/state/zip combo is real.



www.ups.com



UPS knows zip code errors are a common cause of shipping mistakes. That's why they validate zip codes and make sure the city and zip match up before a shipment order is submitted. That way, both the customer and company come out a winner.

In this case, I accidentally entered my destination as a city in Illinois with a New York zip code. UPS catches the error and offers a pull-down menu with recommended alternatives (including appropriate matches for both the city and zip code I entered).

Most sites don't validate addresses on the spot, meaning this sort of error isn't caught until it's too late. UPS's smart validating saves me time and keeps my shipment on track.

### As if...

Why is this good? It's as if I'm buying new tires for my car. I pick out a set, but the salesclerk informs me that this particular set won't fit my car. He then shows me another set of tires that will fit.



Please enter a valid phone number (Numbers only -- no letters, spaces or special characters).

The Motley Fool site spots an improperly formatted

phone number right away. This message explains the proper format for the entry. The site could go a step further and provide an example, too.



www.nba.com



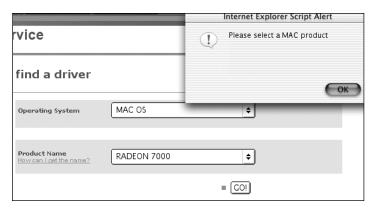
The NBA site gives an alert that the email field is not completed properly. (It was left blank.) Friendlier language could be used, however. A better message would read, "You didn't enter a valid

email address (for example: shaq\_oneil@lalakers.com). Please try again."

### Tech info

#### Validation scripts

Online resources offer free cut-and-paste JavaScript examples to use at your site. For example, The JavaScript Source (http://javascript.internet.com) offers a handy email address validation script that makes sure people don't enter multiple at signs (@s) or continuous dots (.s) in the address (for instance, james@@hotmail.com and susan@bbc..co.uk).



I went to download a driver at ATL I selected "Mac OS" as my operating system, but then mistakenly chose a non-Mac product. Thankfully, ATI checks to make sure that the OS and product are compatible. The site spots the error and informs me that I need to select a

Mac product before moving on. This saves me time and frustration.

### Tech info

#### Server-side validation

Keep in mind that server-side validation is the only fail-safe method for error checking. JavaScript is helpful because it can be used to validate forms quickly (no time-consuming server trip is required) but can be problematic as a standalone solution because some people's browsers may have it disabled. An ideal solution is to offer both: JavaScript as the first line of defense and a server-side check as the backup.

#### Overvalidation

Don't overvalidate forms, however. If you have international visitors, you may have to account for country-specific data (for instance, no zip code, an international phone number with a plus sign [+] at the beginning, and so on). You want to make sure you don't shut down these visitors with excessive validation techniques. In some cases, you may want to allow visitors to override error messages and submit the data as is.

Button up: Eliminate the Reset button and disable the Submit button after it's clicked

When it comes to buttons, one wrong click can ruin an otherwise successful form experience. Inadvertently clicking Reset can delete an entire form's data. Accidentally doubleclick Submit and you may wind up submitting information twice (resulting in multiple accounts, purchases, or some other unintended consequence).

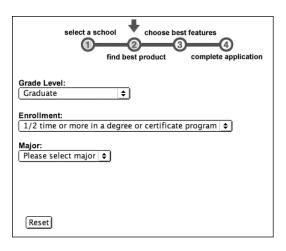
People rushing through forms don't carefully read explanatory text or buttons before submitting a form and often make one of these mistakes. Make sure this sort of misclick isn't a deal breaker.

#### Eliminate reset buttons

Reset buttons (a.k.a. Clear or Cancel) are an invitation to frustration. These buttons are rarely useful and pose a dangerous threat to visitors who are trying to complete forms: One wrong click and all that labor-intensive data entry is lost. Reset buttons also increase confusion because they force people to process the impact of different buttons to determine the proper next step.

There isn't much benefit to Reset buttons. Visitors can easily use the browser's Refresh button to clear form information or just type over the existing data. So when it comes to Reset buttons, just say no.





Bank One's student loan application features one button at the bottom of the screen. Clicking that button will submit my information and take me to the next step of the process, right? Actually, no. The one button displayed is Reset one click and all the data on this page is erased.

It turns out the Continue to Step 3 button appears only after the final pull-down option is selected. Bank One would be doing its customers a service by eliminat-

ing the Reset button altogether and showing the Continue to Step 3 button as disabled until all necessary conditions are met.



Credit Card Type:	Choose a credit card type
Credit Card Number:	
	Credit card information is required to apply online. If you would prefer to print and mail in your application, please click here
Credit Card Exp. Date:	(MMYYYY)
Credit Card CVV or CID Code:	Click here for explanation
	How many letters and small parcels do you ship using domestic OVERNIGHT delivery service?  /month  How many letters and small parcels do you ship using domestic NON-OVERNIGHT delivery service?  /month  How many packages do you ship internationally?  /month
Send Rec	uest Clear Fields

Here, FedEx makes a mistake by placing a Clear Fields button adjacent to the Send Request button. The Clear Fields button adds confusion and will cause problems when visitors in a hurry click it by mistake. How often is someone going to want to delete everything he just typed anyway? Just because the site can include a Clear button doesn't mean it should.

### Confirm deletions

In the rare instance that a form does require a Clear or Reset button, try to confirm the action to minimize the chance that a visitor deletes data accidentally.





I clicked the Erase Form button on this page at the University of Washington's site. The site uses a JavaScript alert to confirm my intentions. It's always a good idea to

confirm data deletion to prevent the dreaded "Where'd all my info go!?"

### Disable submit button once pressed

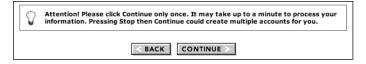
Too many sites scare customers with this sort of tough button talk:

"Click the Order button one time only and then wait for your order to process. If you click the button more than once, you will be charged for multiple orders!"

Ominous language and false charges? Not the way to make friends online.

Whether on purpose or by accident, customers will sometimes wind up double-clicking form buttons. There is a way to prevent duplicate submissions, however. Use JavaScript to disable buttons once they are clicked. Then, the script can change the button (for instance, fade it out to show it's been pressed and/or present new text that explains the situation, such as "Please wait while we process your order").





Creating a new account at E\*Trade? Hopefully you're not trigger-happy. After you click Continue, you'll have to

wait up to a minute for your entry to process. And if you mistakenly click the button twice (or click Stop and then click Continue), you'll end up with multiple accounts. E\*Trade could prevent this messy scenario by disabling the button after it's clicked and changing the text to "Processing, please wait. This may take up to a minute." Alternatively, the site could provide an intermediate status page between the submission of the form and the results page.

# **Applied Biosystems** DISABI ING A BUTTON

www.appliedbiosystems.com

Language	English 💠	
Researcher Name		
Researcher Phone		
Contact Person		
☐ I would like to receive information pertaining to the Applied Biosystems e-commerce store.		
Please do not show sequence information on the order confirmation, packing slips or invoices.		
Continue		

Language English 🛊 Researcher Name Researcher Phone **Contact Person** 🗐 I would like to receive information pertaining to the Applied Biosystems e-commerce 🧐 Please do not show sequence information on the order confirmation, packing slips or Wait

**Applied Biosystems** realizes customers may click a button more than once. To prevent duplicate submissions, the site uses JavaScript to disable the button after it's pressed. The code also changes the button's value from Continue (the button's original state) to Wait (the disabled state) so that visitors know what's happening. It's a nifty solution to a common problem.

### Assist form dropouts by saving information

Let's say I'm in the middle of filling out a lengthy registration form and my browser crashes. Or maybe I'm completing a gift purchase but realize I don't have the recipient's address on me. Or perhaps I'm late for dinner and don't have time to complete an account profile.

In any of these situations, I'll be forced to bail out and return to the site in question. When I come back, will I have to start from scratch or will my information be saved? The answer may be the difference between a lost customer and a satisfied one.

Just because a visitor abandons a form, it doesn't necessarily mean he or she won't come back to complete it later. Your site can help visitors like this get back in the saddle by saving data as it is entered. It's a great way to make an application, registration, or checkout process easier to complete. Customers will appreciate your proactive efforts and conversion rates will increase if you follow these measures:

#### 1. Save customer data.

Automatically save in-progress forms (or let visitors choose to save this data).

### 2. Tell form-fillers the data is saved.

Use your site or email to remind visitors that they can easily jump back into an abandoned form process.

### 3. Provide easy access.

Enable people to quickly access and complete abandoned forms.

What are the real-world applications of this technique? You can hold items in a customer's shopping cart so that they can be purchased later. Or store sign-up information so a customer doesn't need to start over from scratch. Or save a mortgage application when the applicant doesn't have all the required information at that moment.





While filling out a home equity loan application at Discover, I realized that I did not have all the information I needed (that is, I didn't know the total square footage of my property).

Unfortunately, Discover doesn't let me save the other information I've entered successfully, meaning I'll have to re-enter it all again. Discover should allow me to save this application so that later I can pick up where I left off.



www.bankone.com

Student Loan Online Application	
Start a New Application:	
	Click For New Application
-OR-	
Retrieve Your Saved Application:	
	Email Address:
	Confirm Number:
	Retrieve Saved Application

Bank One realizes lengthy loan applications can be difficult to complete in one sitting. That's why the site lets student loan applicants save applications and retrieve them later.







I abandoned the Netflix free-trial sign-up process at the final stage because I wanted to browse the video selection library more. The site wisely offers a persistent "Finish Sign-Up" link at the top of each page as I browse the rest of the site. This way I'm never more than one click away from returning to where I left off in the signup process.

After I leave the site, Netflix even goes a step further by sending an email to let me know my information is saved. The message also notifies me of the information that's still needed to complete the process. The email closes with a helpful link to "Finish signing up for your free trial." Tactics such as this are part of the reason Netflix recently doubled its subscription base in less than a year.

### As if...

My computer crashes, but the application I'm working in autosaves the open documents so that I don't have to start from the beginning again.

### CHAPTER SUMMARY

Effective form contingency design is a great way to boost conversion rates. Highlight required fields so that people know which ones are optional. Customers don't want to guess at acceptable entry types, so make sure you accept entries in all commonly used formats. Also, provide examples, pull-downs, and formatting hints to prevent data entry miscues. If there are limits on certain form fields, be upfront about them so that visitors don't wind up frustrated later on. Prevent bad data from entering the system by eliminating unacceptable options and validating entries on the spot. Eliminate button confusion by omitting Reset buttons and disabling Submit buttons after they're clicked. Finally, let people save lengthy forms so that they can complete them later.