



Staples.com: Focus on Usability

by Tom McCann and Colin Hynes

Staples Inc. is an office supply company that has revenues in the order of \$11 billion per annum. In late 1998 Staples launched its public e-commerce website Staples.com. Since its launch, Staples.com has contributed an increasing amount to company revenue and in mid 2001 posted its first profitable quarter.

The continual increase in revenues flowing from Staples.com is in part due to the focus Staples management placed on site usability. Staples now boasts a usability team numbering five full-time usability professionals, supplemented by consultants. Collectively, these professionals are responsible for the usability of five e-commerce websites, including two international sites.

This article presents two case studies that demonstrate the types of usability issues encountered in a *brick-and-click* environment and the methods used to resolve them.

Case Study 1: Site Registration

Customers who wish to purchase products through Staples.com are required to register on the website. Through click

stream analysis and monitoring call center logs, it was discovered that potential customers were having difficulty locating the registration pages and completing the registration process once they had found the pages.

Resolution Plan

To ensure that problems associated with registration were clearly identified and resolved, Staples.com implemented a three-step plan:

1. Conduct a heuristic review and usability test to clearly identify the problem areas.
2. Review the registration process on competitor and best practice e-commerce websites to identify opportunities for improvement.
3. Conduct iterative usability testing of the revised process.

Resolution Challenges

Locating the Registration Pages. Call center logs indicated that potential customers were having difficulty finding the registration pages. Usability tests indicated that users did not associate the verbiage *Click to set up your profile* with the action of registering on the site.

Based on the data collected during usability testing, the language and design treatments of the link to the registration pages on the home page were modified to make the link more visible and to more closely match the users' expected nomenclature. Figure 1 shows the difference.

Completing the Registration Pages. The registration process on Staples.com is a two-page process. The first page collects customer billing and shipping details as well as optional marketing data. Click-stream analysis showed that these pages had one of the highest drop-off rates of the site. Call Center logs indicated that customers were concerned about the length of the process primarily because the first page was too long (see Figure 2) and customers had difficulty recovering from errors.

Usability testing identified the following issues:

1. Instructional copy at the top of the first page made the page look exceptionally long.
2. The "Billing as Shipping" checkbox was hidden among instructional copy, leading users to enter the same information twice (see Figure 2).
3. Cross Street/Landmark field was mandatory but not marked as such (see Figure 3).
4. Optional Customer Information (see Figure 3) extended the length of the page.
5. The user was required to come up with a unique user name to identify him or herself to the system. With more than 1 million registered users, it was difficult to find a unique user name that was easy to remember.
6. The instructional copy about the reminder question (see Figure 4) did not give users anywhere to start.
7. Error messages were presented on a separate page, requiring users to memorize the errors before returning to the registration pages to fix them (see Figure 5).
8. If the user clicked the browser Back button, he or she lost all the information previously entered into the form (see Figure 5).

An extensive review of the registration process on competitor and best practice e-commerce websites identified a number of opportunities to improve the registration pages and process. Iterative usability testing of the revised process and pages led to continued incremental modifications, finishing up with the pages shown in Figures 6-8.

1. Trimmed instructional copy reduced the length of the pages.
2. Relocation of the "Billing as Shipping" checkbox (see Figure 6) led to a significant reduction in double entry of data, reducing the overall time to complete the form.
3. Consolidation of the Optional Delivery

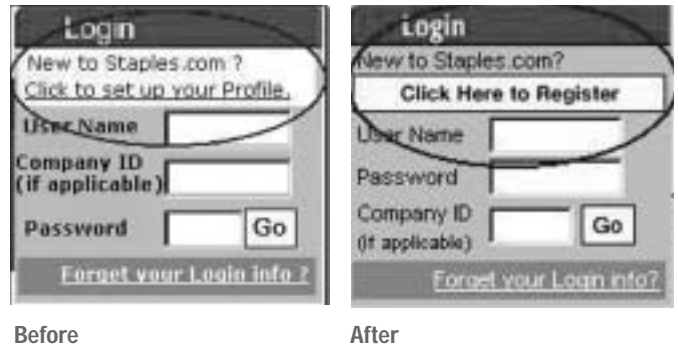


Figure 1. Clear Language.

4. Information fields into one, nonmandatory field facilitated use (see Figure 6).
4. The user name field now is prepopulated with the user's email address to save thinking and input time, to reduce the frequency of "User Name Already in Use" messages, and to increase likelihood of recall (see Figure 7).
5. Tightened form spacing; marked all mandatory fields as such; relocated optional user information to the second page (see Figure 7).
6. The password reminder question (Figure 7) is prepopulated with "mother's maiden name" to save time and

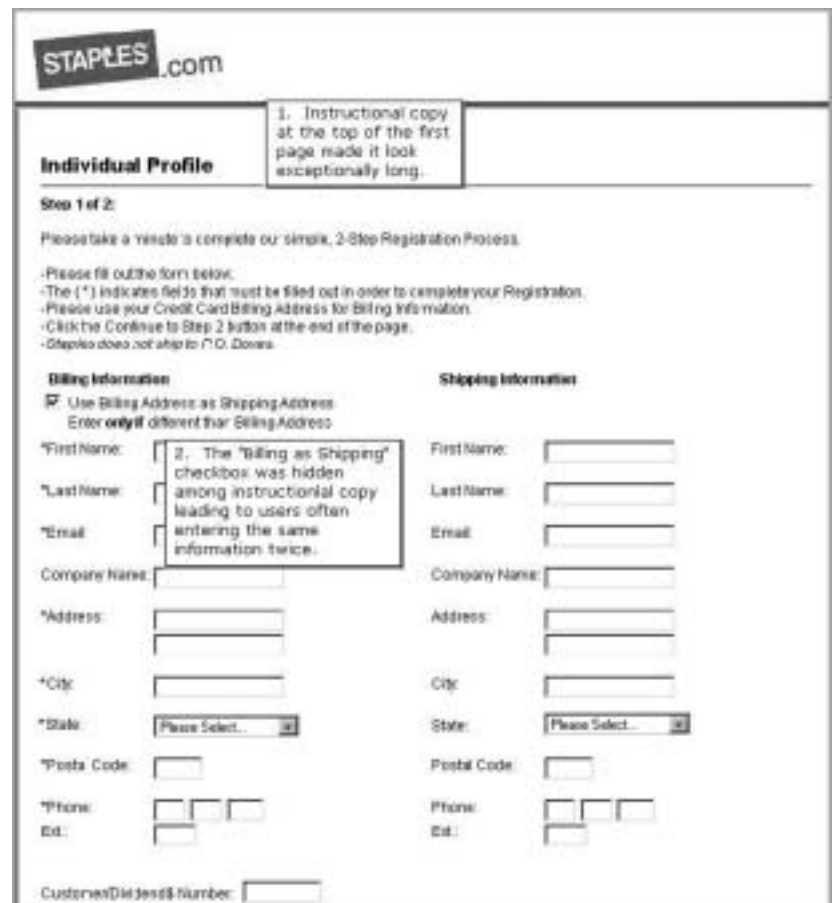


Figure 2. Problems for Customers—A.

Customer/Dividend Number:

NOTE: Please do not enter zeros at the beginning of the Dividend Number. If you have both please enter your Dividend Number. Tax Exempt customers, use your non-taxable Customer Number.

Additional Shipping Information

Cross Street/Landmark:

Floor No.: Is there an elevator? Yes No

Comments:

Optional Customer Information
Please tell us a little bit about yourself. We use this information to customize your shopping experience at Staples.ca.

This Individual Profile will be used primarily for:

- Company
- Home Business
- Personal

Number of Employees:

Type of Business:

Figure 3. Problems for Customers—B.

Individual Registration

Step 2 of 2:

-The (*) indicates fields that must be filled out in order to complete your Registration.

User Name and Password

To keep your information private, your Profile is accessible only by entering your User Name and Password. Note: if you are a Group Profile member, this is your personal way to access your Group Profile - it is not for company-wide use.

*User Name:

*Password:

*Confirm Password:

HINT: Choose an easy-to-remember name, like your email address. The User Name may include only letters (A-Z and/or lowercase a-z). It may not include any spaces or special characters other than @, ., _ and -.

Don't forget to write down your User Name and Password and keep it in a safe place.

Reminder Question

Type in a question that only you know the answer to, for example - What is my favorite dessert? If you forget your Password in the future, your Reminder Question will be in. Give to enter your User Name and the right answer to your Reminder Question and we'll provide your Password.

*Reminder Question:

*Answer:

Figure 4. Problems for Customers—C.

STAPLES.com

You have the following errors:

- Billing Postal Code is required
- Billing Telephone number must be 10 characters
- Shipping Postal Code is required
- Shipping Telephone number must be 10 characters

Please [go back](#) and correct the error and try again.

Figure 5. Problems for Customers—D.

effort in coming up with a question (Both pre-populated fields are editable by users as desired.)

7. Error messages are displayed on the same page the user is working on, decreasing memory workload. Errors are explained at the top of the page with relevant fields highlighted in bold red (see Figure 8).

Impact of Modifications

The impact of the changes made to the registration process was measured qualitatively through usability testing and quantitatively by measuring changes in page drop-off rates and Call Center inquiries about the location of the registration pages and the level of support required during the registration process.

Usability testing indicated that users were able to complete the registration process more quickly and with greater satisfaction. The main time savings resulting from the modified process and pages were generated by several elements:

- Users do not have to spend the time to create a unique user name, a process that could take up to three attempts.
- Users do not experience as many errors and therefore spend less time re-entering information.

Measurement of the drop-off on registration pages showed an impressive decrease of 73% in the number of users who left the site while in the registration process. Similarly, Call Center logs showed a significant decline in the number of calls related to the registration process.

Study 2: Express Checkout

Staples.com is accessible in all Staples stores through a variety of kiosks known as Access Points. The primary purpose of Access Points is to provide store associates the opportunity to save the sale in situations when a customer requires a product that is out of stock or not carried in that store. Typically, Staples stores carry between 7,000 and 8,000 individual products, while Staples.com provides access to more than 40,000 products, essentially increasing the range of products available to store customers by 500%.

While providing customers access to Staples.com while they were in stores initially seemed to make a lot of sense, it quickly became obvious that a website designed for use in the privacy of a home or office was not completely suited for customers standing in the middle of a busy retail outlet.

Figure 6. Reworked Page—A.

A number of the more serious problems were associated with the need for customers purchasing items through an Access Point to have to register on the site. These issues fell into three areas:

- **Time:** Associates and customers complained that the registration process took too much time.
- **Customer Resistance:** Many customers saw the need to enter their contact details as an invasion of privacy and were concerned that doing so would contribute to the amount of direct marketing they would be exposed to.
- **Customer Service Issues:** To address the issues outlined in the points above, many associates created *dummy* accounts and simply updated the shipping details for each order they helped to process. This resulted in the details of the previous customer being overwritten, often making it impossible to contact that customer if needed, or to track the progress of that customer's delivery.

Resolution Plan

A process designed to quickly identify the causes and generate solutions for these problems was implemented:

- **Situational Observations and Interviews:** In situ observations and interviews of customers and associates involved in ordering products from Access Points were conducted.
- **Wireframe Walkthroughs:** Task walkthroughs using low fidelity representations of a redesigned ordering process and pages were conducted with associates and customers in the store environment.

Resolution

Observation and interviews with associates and customers revealed the following:

- Registration was taking up to 10 minutes to complete. The Staples.com registration system by default uses the customer email address as the user name, thereby ensuring user name uniqueness. However, many customers who shopped in store did not have an email address or did not wish to provide one. This resulted in the customer needing to create a unique user name. In most of these instances customers initially entered a variation of their own name for the user name, which, because of the of the Staples.com user population,

was often rejected as not being unique. It was not unknown for five or six attempts being made to derive a user name that was both unique and meaningful to the customer. On top of the frustration of the situation, the total time spent by Associates per annum across the Staples store network assisting customers enter registration details was assessed to be approximately 44 labor years!

- Customers were suspicious of the requirement to provide the details necessary to register on Staples.com. Pre-access point, when customers ordered an item from a Staples store, they provided a name, a delivery address, paid at the store register, and then left. Using Staples.com to order products required customers to provide a billing address, a shipping address, and an email address (see Figure 9). The fact that this process created a permanent online account for the customer was not seen by customers to be of any significant relevance or value.

Figure 7. Reworked Page—B.

Figure 9. Cash Register Checkout Form.

- Almost 99% of customers who place an order through Access Points pay for the order at the store registers. (The back-end systems to allow customers to order through Access Point but pay at the store register was part of the implementation.) While customers gave a variety of reasons why they preferred to pay for Access Point orders at the store register, it was discovered that store associates also strongly encouraged customers to pay at the register. Given that most customers intended to pay at the store register, the need to create an account on Staples.com solely for the purpose of placing an order did not make sense.

Figure 8. Reworked Page—C.

Based on this information, the purchase process was designed, as were associated pages that did not require cus-

tomers to create an account when using Staples.com from an Access Point.

The new process was based on the premise that the intent of store customers is to pay for their order at the store register. Therefore, when a customer on an access point clicks on the checkout button, if they are not already logged into Staples.com, a cash register checkout form is displayed. This page requires the customer to provide shipping and contact details, as well as asks for optional marketing information. Once completed, the customer is given the opportunity to check the order details, following which a payment form, which is taken to the register, is printed. Orders that are not paid by that day's close of business are not processed.

Outcome

Removing of the need for store customers to create a Staples.com account has significantly reduced the time and frustration for both customers and store associates with ordering products through Access Points. At this stage, anecdotal evidence suggests store associates are much more

likely to direct customers to the Access Points to meet their product needs. The volume of help desk calls and complaints related to this issue have essentially ceased. 🌟

Tom McCann, Senior Manager Usability, Staples Business Delivery. Tom has experience across a wide range of human performance environments ranging from evaluation of man-machine systems for the Australian Military, the design of front and back-office bank branch processes and accompanying forms, evaluation and design of client-server and intranet systems for a telephone and communications firm and the evaluation and design of instructional systems for industry and education. Tom holds a BA (Psych) from the Australian National University and an MA (Psych) from the University of Sydney. He may be reached at Tom.McCann@Staples.com.

Colin Hynes, Director Site Usability, Staples Business Delivery. Colin founded, built and currently leads the usability group at Staples that is responsible for information architecture, functional definition, and usability testing of online products. Previously, he led the user experience strategy of websites for FedEx, AT&T, Fidelity Investments, SmithKline Beecham, and many others. Colin holds an MS in human factors in information design, an MS in journalism, and a BA in corporate communications. Colin may be reached at Colin.Hynes@Staples.com.

Succeed in the Work/Life Balancing Act with *Alternative Work Schedules*

Conflicts between work demands and personal life dominate the workforce now more than ever. Today, Work/Life challenges concern everyone, from the senior executive to the administrative assistant.

To assist organizations in the development and implementation of flexible work options, the HR Center at IPMA has produced the informational guide, *Alternative Work Schedules*.

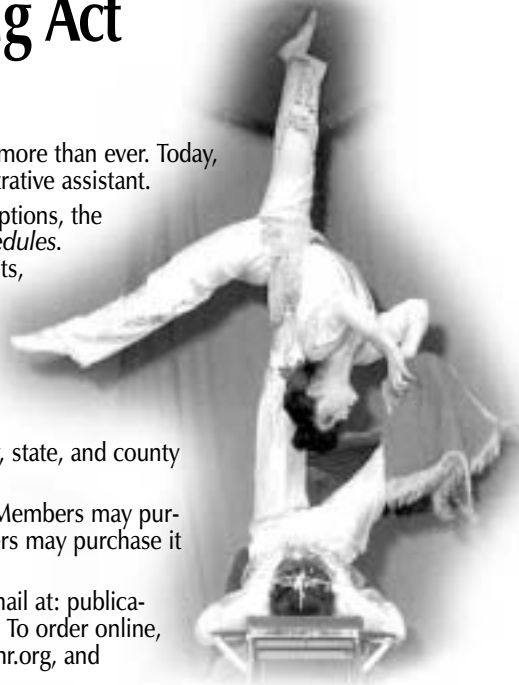
This new publication covers current trends surrounding flexible work arrangements, and the following key issues:

- Flexible work schedule options;
- The advantages and disadvantages of alternative work schedules; and
- Steps to developing an alternative work schedule program.

Alternative Work Schedules also includes alternative work programs used by city, state, and county governments that present a variety of flexible work options.

Alternative Work Schedules is free for IPMA Agency Members. IPMA Individual Members may purchase a copy of the guide for \$30.00 each plus shipping & handling. Non-members may purchase it for \$50.00 each plus shipping & handling.

To order, contact the IPMA Publications Department at: (703) 549-7100, or by email at: publications@ipma-hr.org. Please specify order code CPR-AWS when placing your order. To order online, and for more information on HR Center products and services, visit: www.ipma-hr.org, and select HR Center.



International Personnel Management Association
1617 Duke Street, Alexandria, VA 22314
tel: 703-549-7100 ● fax: 703-684-0948
email: ipma@ipma-hr.org ● web: www.ipma-hr.org

Source code: ISP-AWS