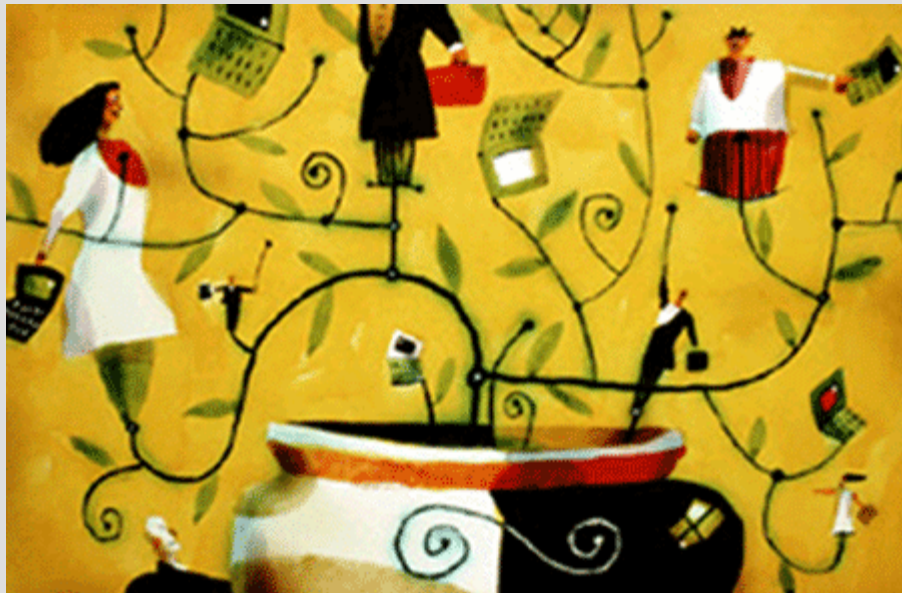


User-Centered Website Development: A Human-Computer Interaction Approach





Daniel D. McCracken

City College of New York

Rosalee J. Wolfe

DePaul University

With a foreword by:

Jared M. Spool, Founding Principal,

User Interface Engineering

PowerPoint slides by Dan McCracken, with thanks
to Rosalee Wolfe, S. Jane Fritz of St. Joseph's
College, and Rhonda Schauer



Credits

- ◆ Slide 6: Courtesy of Dell Computer Corporation
- ◆ Slides 8-9: Netscape website (c) 2002 Netscape Communications Corporation. Screenshot used with permission.
- ◆ Slides 10-12: Courtesy of Soliloquy.com



14. Personalization and Trust

After studying this chapter you will:

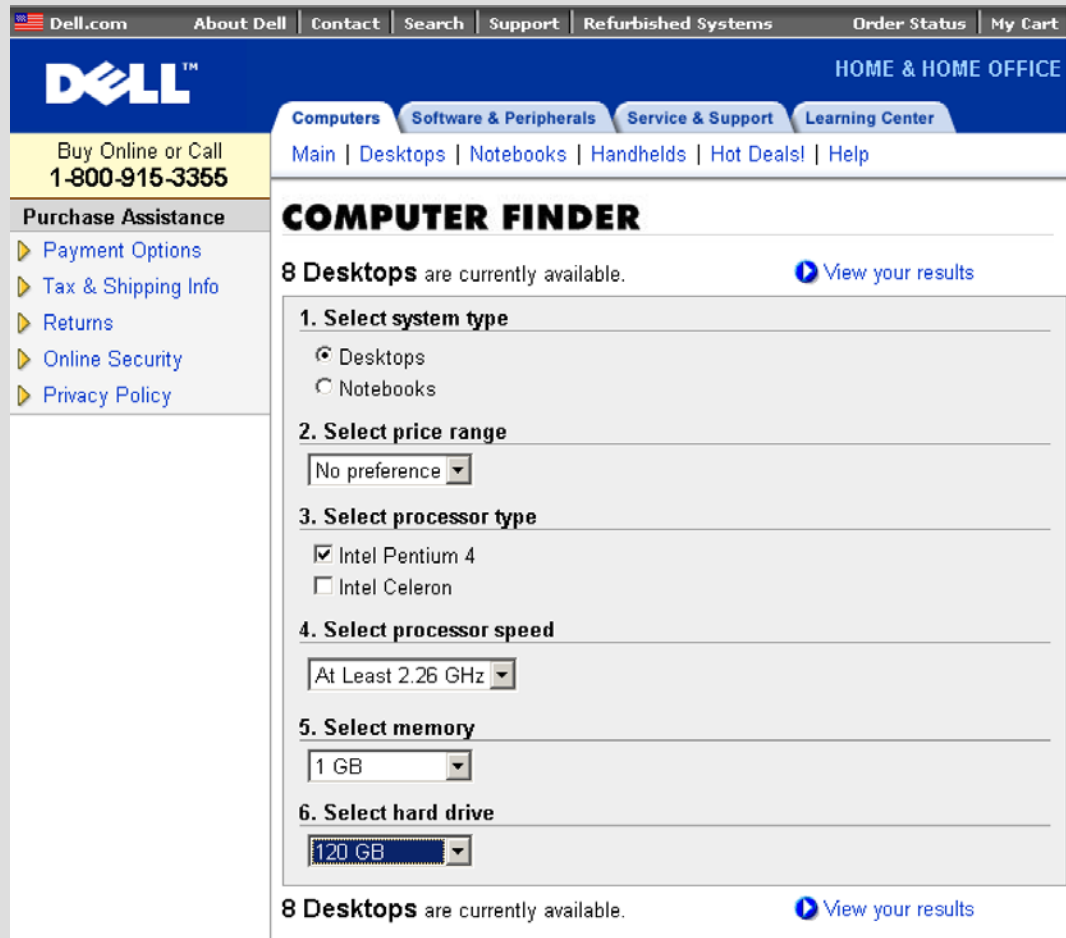
- ◆ Know about the different kinds of personalization on the Web
- ◆ Be aware of privacy issues, and some ways of responding to them
- ◆ Understand some of what inspires trust in websites



14.2 Benefits of Personalization

- ◆ A strategy for gaining competitive advantage
- ◆ Often a value-added service for user
 - ⊕ Example: knowing ZIP code permits listing only nearby restaurants
- ◆ If the information that is most relevant to a particular user is placed near the top of the page, the user can find what he/she wants quickly
- ◆ A little information from user may permit narrowing range of choices; example Dell.com

Personalization: The Computer Finder at Dell.com



The screenshot shows the Dell.com website's 'COMPUTER FINDER' tool. The top navigation bar includes links for Dell.com, About Dell, Contact, Search, Support, Refurbished Systems, Order Status, and My Cart. Below this is a blue header with the Dell logo and 'HOME & HOME OFFICE'. A secondary navigation bar lists 'Computers', 'Software & Peripherals', 'Service & Support', and 'Learning Center'. A yellow box on the left contains the text 'Buy Online or Call 1-800-915-3355'. Below this is a 'Purchase Assistance' section with links for Payment Options, Tax & Shipping Info, Returns, Online Security, and Privacy Policy. The main content area is titled 'COMPUTER FINDER' and shows '8 Desktops are currently available.' with a 'View your results' link. The filter steps are: 1. Select system type (Desktops selected), 2. Select price range (No preference), 3. Select processor type (Intel Pentium 4 selected), 4. Select processor speed (At Least 2.26 GHz), 5. Select memory (1 GB), and 6. Select hard drive (120 GB). The results section at the bottom repeats the count and provides another 'View your results' link.

COMPUTER FINDER

8 Desktops are currently available. [View your results](#)

- 1. Select system type**
 - ☒ Desktops
 - ☐ Notebooks
- 2. Select price range**
 - No preference
- 3. Select processor type**
 - ☒ Intel Pentium 4
 - ☐ Intel Celeron
- 4. Select processor speed**
 - At Least 2.26 GHz
- 5. Select memory**
 - 1 GB
- 6. Select hard drive**
 - 120 GB

8 Desktops are currently available. [View your results](#)



Examples of personalization

- ◆ Amazon.com presents book suggestions based on past purchases
- ◆ Netscape offers opportunity to choose content and specify appearance; see next two slides
- ◆ Software that “converses” with the user, helping to make choices; see Slides 10-12

netscape.com without personalization— only top half shown, for legibility

The screenshot displays the Netscape.com homepage with a blue header bar containing the Netscape logo and navigation links like Mail, Calendar, Search, and Download. Below the header, a large grey rectangular area is present. The main content area is divided into several sections:

- What's New:** A list of links including "Forgot Your Password? Click Here!", "New! Joke of the Day", "Chinese Astrology - Rat or an Ox?", "Take the Crossword Challenge", and "What Do the Stars Hold For You?".
- Personal Finance:** A section titled "CBS MarketWatch.com Market Snapshot" providing market data. It includes a table for "My Portfolio" with columns for stock names and prices.
- Top Story:** A featured article titled "Siege Ends" with a sub-headline "Five-week church standoff ends peacefully." and a small image of a church.
- My Services:** A sidebar containing links to "Check Mail", "Check Calendar", "Instant Messenger", and "Message Boards".
- News:** A section titled "Market News by CBS MarketWatch" listing various news items, including "U.S. stocks get a mixed open" and "April PPI down surprising 0.2% on lower food costs".
- Weather:** A section titled "Weather" showing forecasts for "New York, New York", "San Francisco, California", and "London, United Kingdom".
- Sports:** A section titled "Sports" with links to "MLB | NBA | NFL | NHL | Tennis | Golf" and "Auto Racing | Soccer | World Cup".

At the bottom of the page, there is a "Today's Scoreboard" section for "National League Baseball".

netscape.com with personalization

The screenshot displays the Netscape.com homepage with a personalized interface. At the top, the Netscape logo is followed by navigation links: Mail, Calendar, IM, Search, Netscape, Download, and More from Netscape. Below this is a large grey rectangular placeholder. The main navigation bar includes "Make This My Home Page", "Hello Rosalee Wolff!", "My Netscape", "Personalize" (with sub-links: Content, Layout, Settings, Colors), "Search the Web:", and "Help | Feedback | Sign Out". The date and time "Friday, May 10, 2002 10:25 AM CDT" are shown, along with a "Do you know your password?" link and "Yellow Pages | White Pages | Maps & Directions".

The page is divided into several content blocks:

- Calculator:** A standard web-based calculator with a display showing "0".
- Shopping:** A section titled "Today in Shop@" with links to "Shape Up For Spring", "Kids Driving You Nuts?", and "Don't Forget Mother's Day - May 12". It includes a "Choose a Product Category" dropdown menu and links to "A-Z Store Listing" and "Quick Checkout".
- What's New:** A list of links including "Forgot Your Password? Click Here!", "New! Joke of the Day", "Chinese Astrology - Rat or an Ox?", "Take the Crossword Challenge", and "What Do the Stars Hold For You?".
- News:** A section titled "Market News by CBS MarketWatch" with links to "U.S. stocks get a mixed open", "April PPI down surprising 0.2% on lower food costs", "Duncan spotted, but will he testify Friday?", and "Former VerticalNet CEO Walsh gets political". It also includes "Top News" and "Tech News by ZDNet".
- Weather:** A section for "Chicago, Illinois" showing "54°F / 12°C" and "Sunny". It includes a "Weather Lookup" form and a "Go" button.
- Travel:** A section titled "Air Center" with a "Select your preference below and click continue." prompt. It includes links to "The Best Fare, Open Schedule", "Specific Dates, Flexible Times", and "Specific Dates and Times". It also features a "Travel Tool Kit" with links to "Car Rental", "Lodging", "Packages & Cruises", "Destination Guides", "Travel Interests", and "Bargains".

At the bottom, there are three "Add Content" sections for "Left Column", "Middle Column", and "Right Column", each with a "select content" dropdown and an "Add" button. The footer contains copyright information: "© 2002 Netscape. All Rights Reserved. Terms of Service | Privacy Policy © 2002 Reuters Ltd., SportsTicker Enterprises LP. All Rights Reserved. This site powered by Netscape Servers."

Personalization via a conversational interface at Sililoquy.com, 1

between 64 and 96 megabytes

There are 11 laptops that satisfy your requirements.
The hard drive is your main storage device. How large a hard drive will you need?
Choose something between 12 and 20 gigabytes.

enter

start over help Quick Summary

Laptop Price Below \$3000; Manufacturer is TOSHIBA, HP, or IBM; CPU Speed at Least 650; Memory Between 64 and 96

Product name	Price ▼	speed	Memory	+	-
HP OmniBook 4150	\$1278.95	650 Mhz	64 Mb		
HP OmniBook XE2	\$1348.95	650 Mhz	64 Mb		
Toshiba Satellite Pro 4340	\$1493.95	700 Mhz	64 Mb		
Toshiba Satellite Pro 4360	\$1629.95	700 Mhz	64 Mb		
IBM ThinkPad A20 2628	\$2082.95	650 Mhz	64 Mb		

BACK

NEXT

- You walk through the purchasing process with the Notebook Expert while it narrows your choices even further

Personalization via a conversational interface at Sililoquy.com, 2

between 64 and 96 megabytes

There are 11 laptops that satisfy your requirements.
The hard drive is your main storage device. How large a hard drive will you need?
Choose something between 12 and 20 gigabytes.

start over
help

Quick Summary
Laptop Price Below \$3000; Manufacturer is TOSHIBA, HP, or IBM; CPU Speed at Least 650; Memory Between 64 and 96

what is a cable modem? enter

Product name	Price ▼	speed	Memory	+	-
HP OmniBook 4150	\$1278.95	650 Mhz	64 Mb		
HP OmniBook XE2	\$1348.95	650 Mhz	64 Mb		
Toshiba Satellite Pro 4340	\$1493.95	700 Mhz	64 Mb		
Toshiba Satellite Pro 4360	\$1629.95	700 Mhz	64 Mb		
IBM ThinkPad A20 2628	\$2082.95	650 Mhz	64 Mb		

BACK

NEXT

- You don't have to answer the questions directly
- You can ask notebook-related questions

Personalization via a conversational interface at Sililoquy.com, 3

A cable modem is designed to transfer computer data over cable TV (coaxial) wires, providing greater bandwidth (and therefore greater speed) than standard dial-up modems. So then, let's get back to our conversation. The hard drive is your main storage device. How large a hard drive will you need?

start
over
help

Quick
Summary

Laptop Price Below
\$3000; Manufacturer
is TOSHIBA, HP, or
IBM; CPU Speed at
Least 650; Memory
Between 64 and 96

enter

Product name	Price ∨	speed	Memory	+	-
HP OmniBook 4150	\$1278.95	650 Mhz	64 Mb		
HP OmniBook XE2	\$1348.95	650 Mhz	64 Mb		
Toshiba Satellite Pro 4340	\$1493.95	700 Mhz	64 Mb		
Toshiba Satellite Pro 4360	\$1629.95	700 Mhz	64 Mb		
IBM ThinkPad A20 2628	\$2082.95	650 Mhz	64 Mb		

BACK

NEXT

■ **Notebook**
Expert knows
everything
about
notebooks -
does your
customer
service rep?



14.3 Privacy Concerns

- ◆ “Privacy” is not mentioned in the United States Constitution
- ◆ Supreme Court decisions have established a loose concept of “the right to be left alone”
- ◆ In a practical sense, it’s not a legal issue: if users don’t trust you not to misuse personal information, they won’t do business with you
- ◆ Surveys show that trust in a website is a major factor in users’ choices of where to shop



14.4 Factors Affecting Trust

- ◆ Context: potential for loss
- ◆ Perceived similarity: we tend to trust people we think of as having concerns like ours
- ◆ Standing in the community: a leader got there, most of the time, by doing the right thing
- ◆ Behavior: do words match actions?
- ◆ Certification: example, a doctor has proved competence to his or her peers
- ◆ Referrals: Amazon.com uses reviews written by buyers, as well as by authors and publishers



14.5 Fostering Trust in Websites

- ◆ A security statement lists precautions that a site takes to protect sensitive information
 - ⊕ Type of encryption
 - ⊕ Secure server in use
- ◆ A privacy statement lists the types of information gathered and the manner in which it is used
 - ⊕ Some sites offer the user choices: opt-in vs. opt-out
- ◆ Confirmation of expected delivery date
- ◆ Policy on returns



Secure display of credit card information

Credit Card: 3787 ***** American Express

Credit Card: AmEx ****-25003

Enough to be recognizable by the user, but not complete



Giving user a choice: opt-in vs. opt-out

- ☒ I wish to subscribe to Buyers' Advantage, ZoomSonic's e-mail newsletter (Text format)
- ☐ I wish to subscribe to Buyers' Advantage, ZoomSonic's e-mail newsletter (HTML format)
- ☐ I do not wish to subscribe to Advantage' Edge

☐ I wish to subscribe to Buyers' Advantage, ZoomSonic's e-mail newsletter.



Giving information about expected delivery date fosters trust

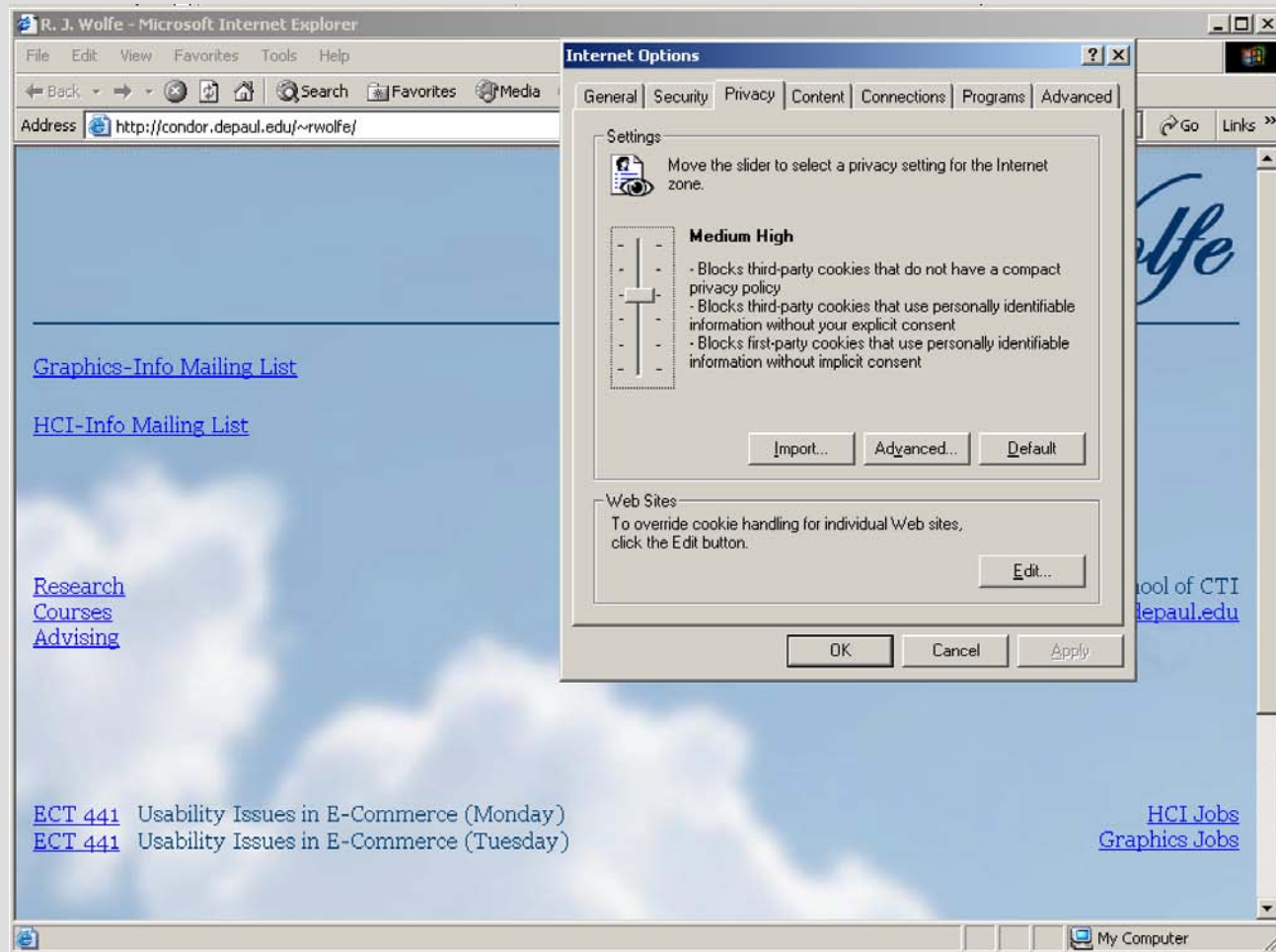
- Standard Shipping \$4.95 (3-7 business days)
- Priority Shipping \$15.00 plus additional \$20.00 for orders over \$200.00 (2 business days)
We are unable to offer priority shipping for orders containing furniture.
- One Day Shipping \$25.00 plus an additional \$40.00 for orders over \$200.00 (1 business day)
We are unable to offer next day shipping for orders containing furniture.



14.6 New Developments in Controlling Privacy

- ◆ Browser suppliers try, but they do not have a standard privacy policy
- ◆ The World Wide Web Consortium (W3C) has created recommendations for protecting user data from abuse
- ◆ The Platform for Privacy Protection Project (P3P) provides a standard way for websites to communicate their practices for collecting, using, and distributing personal information

Privacy preferences in a P3P-enabled browser





Summary

In this chapter you learned about:

- ◆ The benefits of personalization
- ◆ A number of ways that a website can be personalized to the preferences of an individual user
- ◆ Privacy concerns and some of the ways of reassuring users of their privacy
- ◆ The factors affecting trust, and some ways to foster trust
- ◆ The W3C P3P initiative