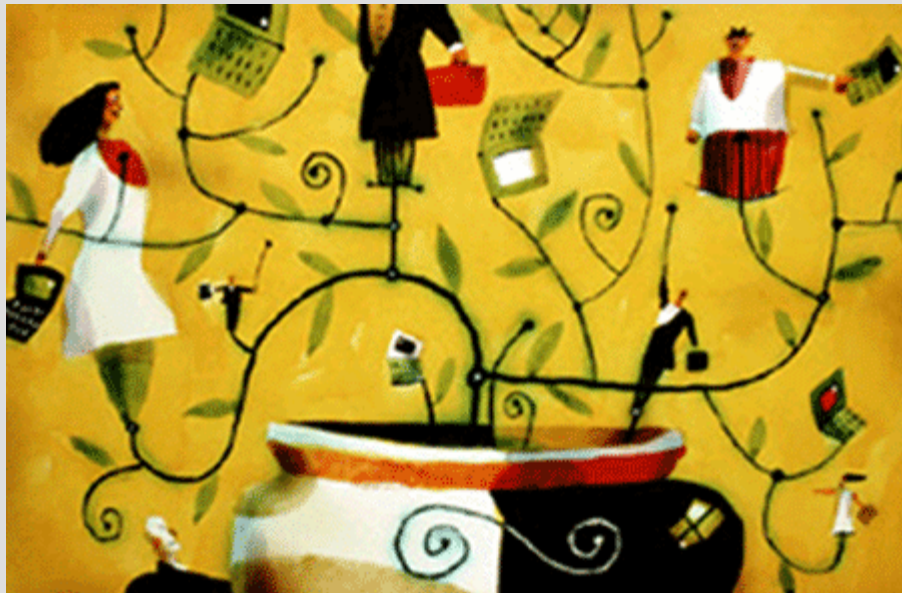


# User-Centered Website Development: A Human-Computer Interaction Approach





---

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 19: Courtesy of the DePaul American Sign Language Project.



# 13. Globalization

---

After studying this chapter you will be aware of:

- ◆ The differences between internationalization and localization
- ◆ Two approaches to text translation
- ◆ Cultural considerations that extend beyond language
- ◆ Screen layout guidelines to accommodate globalization
- ◆ Tips for testing with international users



# 13.2 Internationalization and Localization

---

- ◆ Internationalization: identify and isolate culture-specific items that appear on the site:
  - ⊕ Text
  - ⊕ Numbers
  - ⊕ Dates
  - ⊕ Colors
- ◆ Localization: translate textual content—or create new content—relevant to a particular location



## 13.3 Text Considerations

---

- ◆ Translation: either
  - ⊕ Use human translators exclusively
  - ⊕ Use semiautomatic translation with human oversight
- ◆ In either case:
  - ⊕ Avoid jargon and slang, which translate poorly
  - ⊕ Avoid sports metaphors
- ◆ Fully automatic machine translation is not a viable option—see next slides



# Don't use machine translation alone, without human oversight and editing

---

- ◆ What the sports writer said:
  - ⊕ “Jones walked, stole second, and scored on Smith's bloop single to center.”
- ◆ Machine translated into Spanish:
  - ⊕ “Jones caminó, hurtó en segundo lugar, y que rayó en bloop de Smith solo centrar.
- ◆ Now machine translated the Spanish back to English:
  - ⊕ “Jones walked, stole in second place, and that scraped in bloop of Smith alone to center.”



# It gets better

---

- ◆ From English to French and back:
  - ⊕ “Jones walked, flew the second, and marked on the alone of bloop of Smith to center.”
- ◆ From English to Japanese and back:
  - ⊕ “As for Jones, being recorded by the stall and the center with single Smith's bloop, the second in walking.”
- ◆ From English to Chinese and back:
  - ⊕ “Jones next walked, the female uses the shawl, with scoring in Smith's bloop only to center.”





## In fairness . . .

---

- ◆ Idioms are difficult for a *human* translator
- ◆ The original English means little to a person who is not a baseball fan
- ◆ Natural language—human language—is *extremely* complex
- ◆ *In some cases*, it *may* save time to start with the machine translation and let a person clean it up
- ◆ Some areas, such as medical reports, have a standard vocabulary that can be built into the translation dictionary, and machine translation may work better



## Make format of dates unambiguous

---

In the United States, a date like 5/2/41 means May 2, 1941; in much of the rest of the world it means February 5, 1941. Globalization cannot work with such ambiguity. Make clear what is meant, as below.

Enter date: (mm/dd/yyyy)

March 10, 2005

Date of Birth:

(eg.03/10/1970) required

10 March 2005

Not needed after: Month

▼

Day

▼

Year

▼

10-Mar-2005



## In expressing times

---

- ◆ Use a 24-hour clock instead of A.M. and P.M.
- ◆ State time zone, or state that the time is GMT (Greenwich Mean Time).



# Numbers

---

- ◆ In expressing currency, include:
  - ⊕ The country
  - ⊕ The numeric amount
  - ⊕ The appropriate currency symbol
- ◆ In giving sizes, state units:
  - ⊕ Inches, feet, pounds, quarts, etc.—the so-called English system (which is not used in England)
  - ⊕ Meters, centimeters, grams, liters, etc.—the metric system (which is used in England)

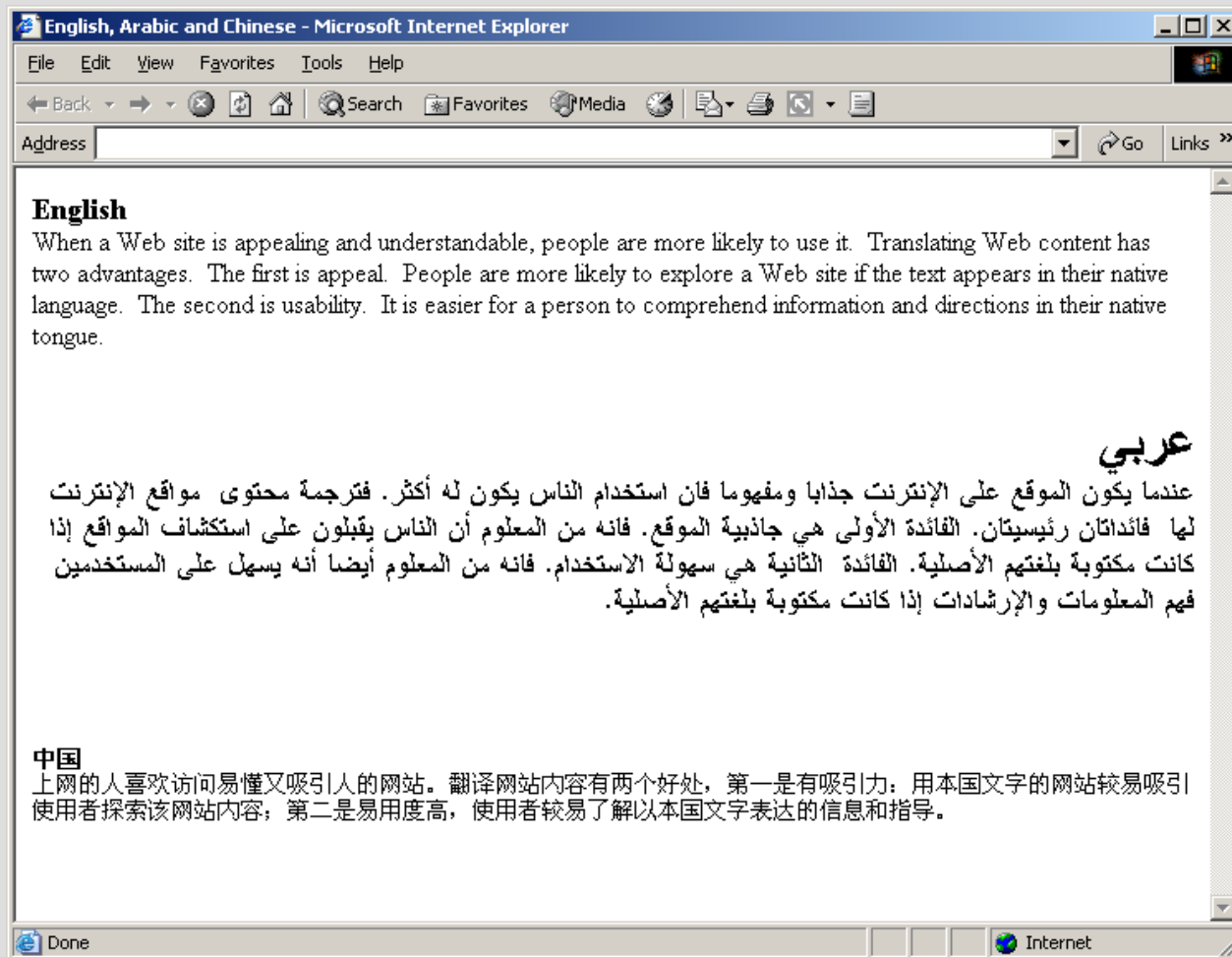


# Cultural differences in use of language

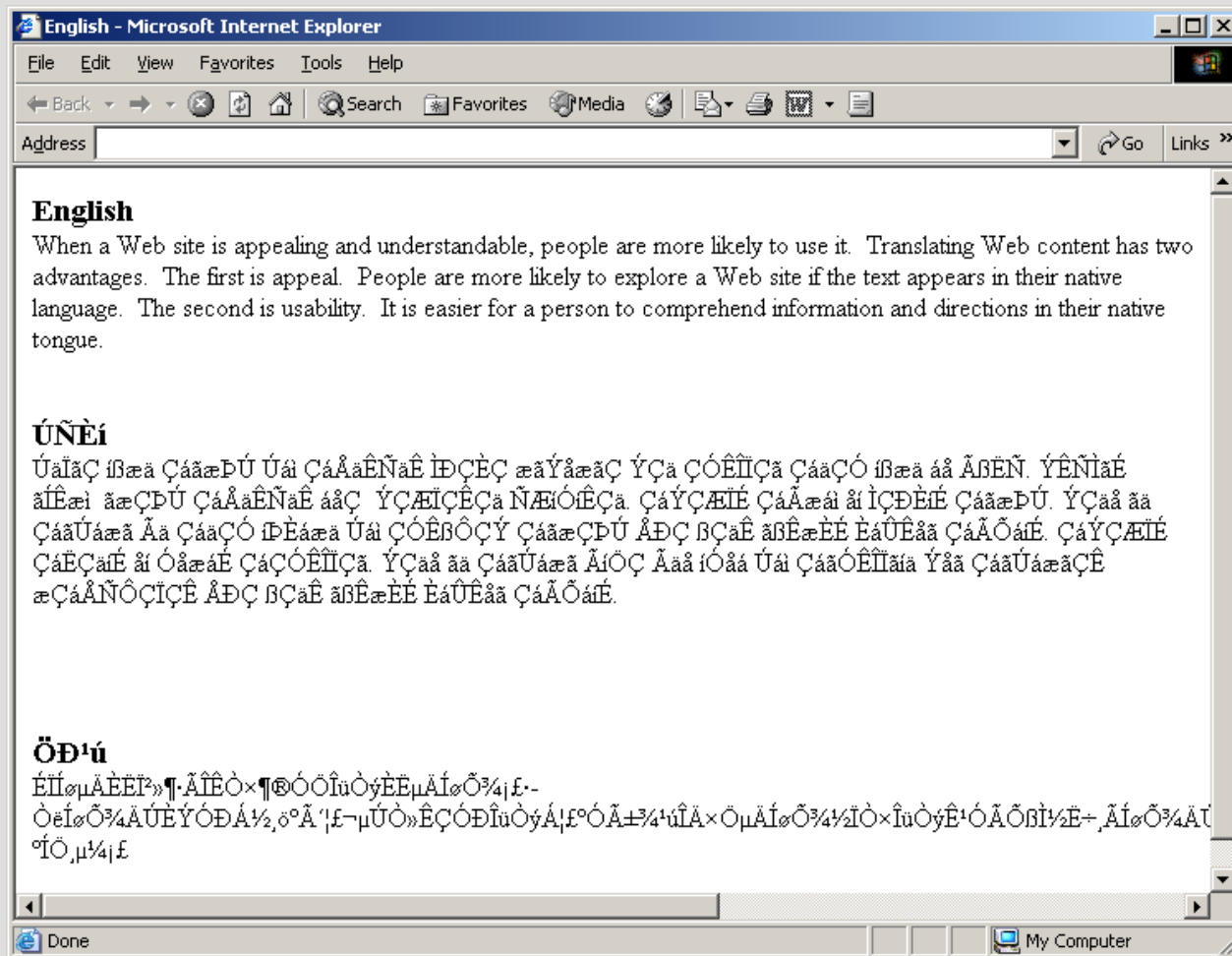
---

- ◆ Americans, as a rule, prefer direct statements:  
“Buy Now!”
- ◆ That would be quite rude in Japan
- ◆ Therefore the translator must be a person who has lived in the country of the target language, and preferably be a native speaker
- ◆ Translator must know the subject area; “menu” on a computer window might become “list of food items”

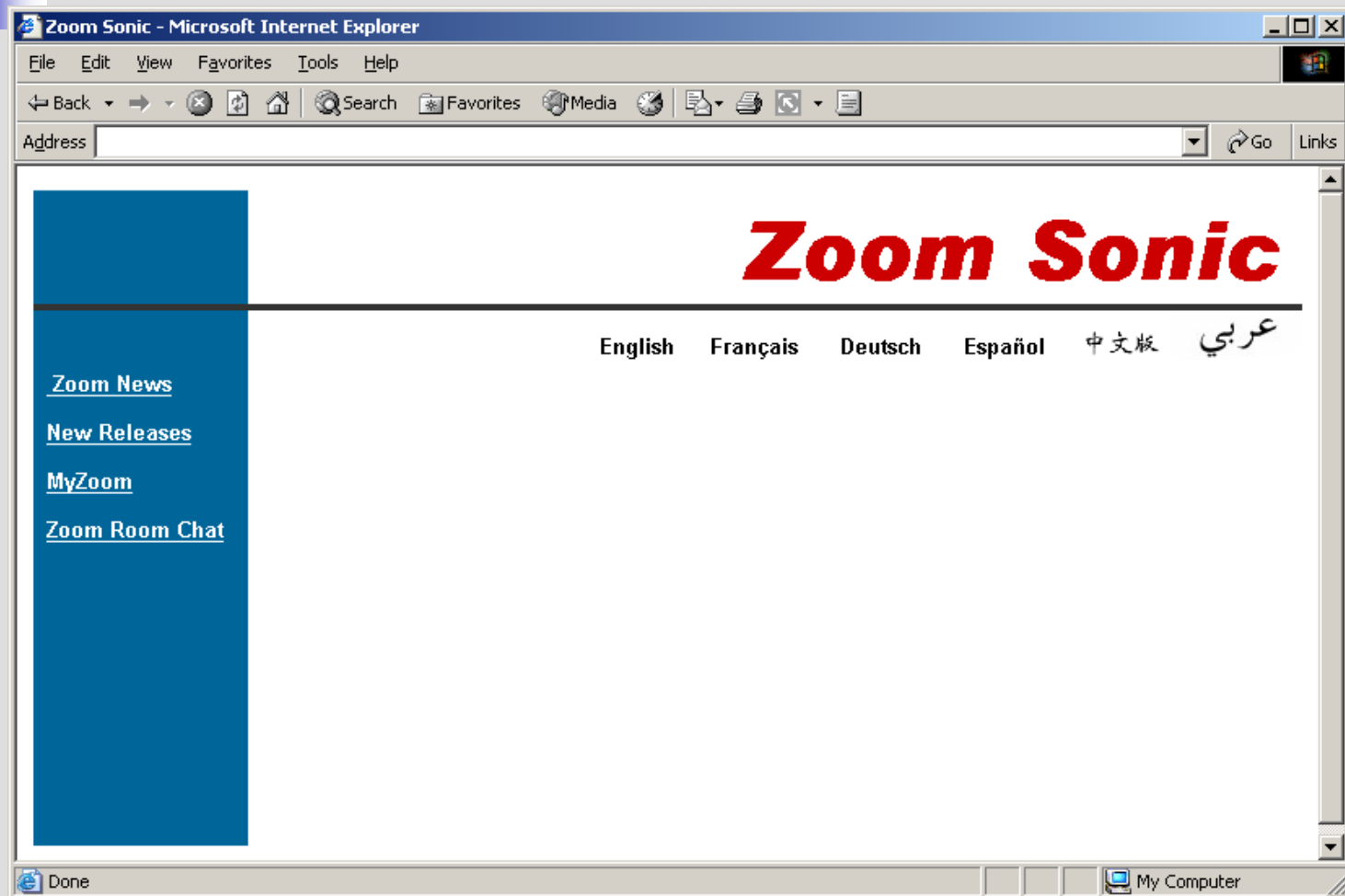
# Languages read fine if the proper character encoding is specified



# Without character encoding specified . . .



# Give language choice in the target language







## 13.4 Color, Icons, and Images

---

- ◆ On color, see tables in text for:
  - ⊕ The great variation in the meaning of color in various cultures
  - ⊕ The fact that the experts on this subject don't agree
- ◆ Get local expert advice
- ◆ Favorite example: brides in the United States wear white—which would be unthinkable in China, where white is the color of death



# Icons

---

- ◆ Don't!
  - ⊕ Common gestures in the United States have wildly different meanings in other parts of the world
  - ⊕ Simple gestures having no particular meaning in one culture may be highly offensive in another
- ◆ It sometimes seems that just about any gesture is obscene or threatening, somewhere in the world
- ◆ If you must use gestures, *do user testing in the target culture*



# What does this gesture mean?

---



- ◆ "Everything is great!"
- ◆ "You are worthless!" (zero)
- ◆ "You are an indelicate sphincter!"
- ◆ "Your car needs new piston rings!"
- ◆ Any of the above, somewhere



# 13.5 Formatting and Page-Layout Considerations

---

- ◆ Punctuation

- ⊕ In France: 1.234,56
- ⊕ In the United States: 1,234.56
- ⊕ Same quantity intended

- ◆ Addresses

- ⊕ Forcing international users to supply a state and ZIP code is confusing and/or insulting

- ◆ Many, many other similar considerations

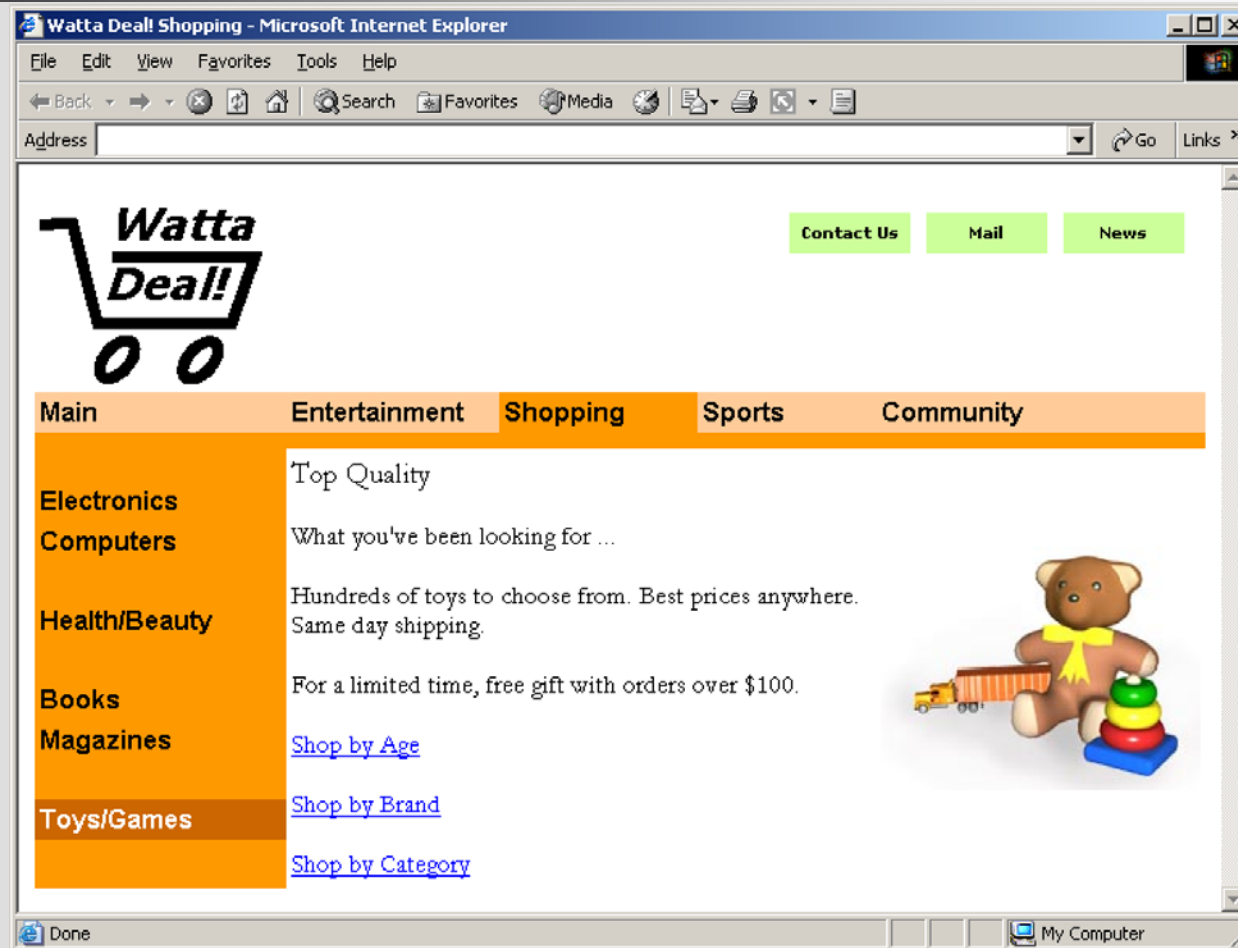


## Reading direction of the target language

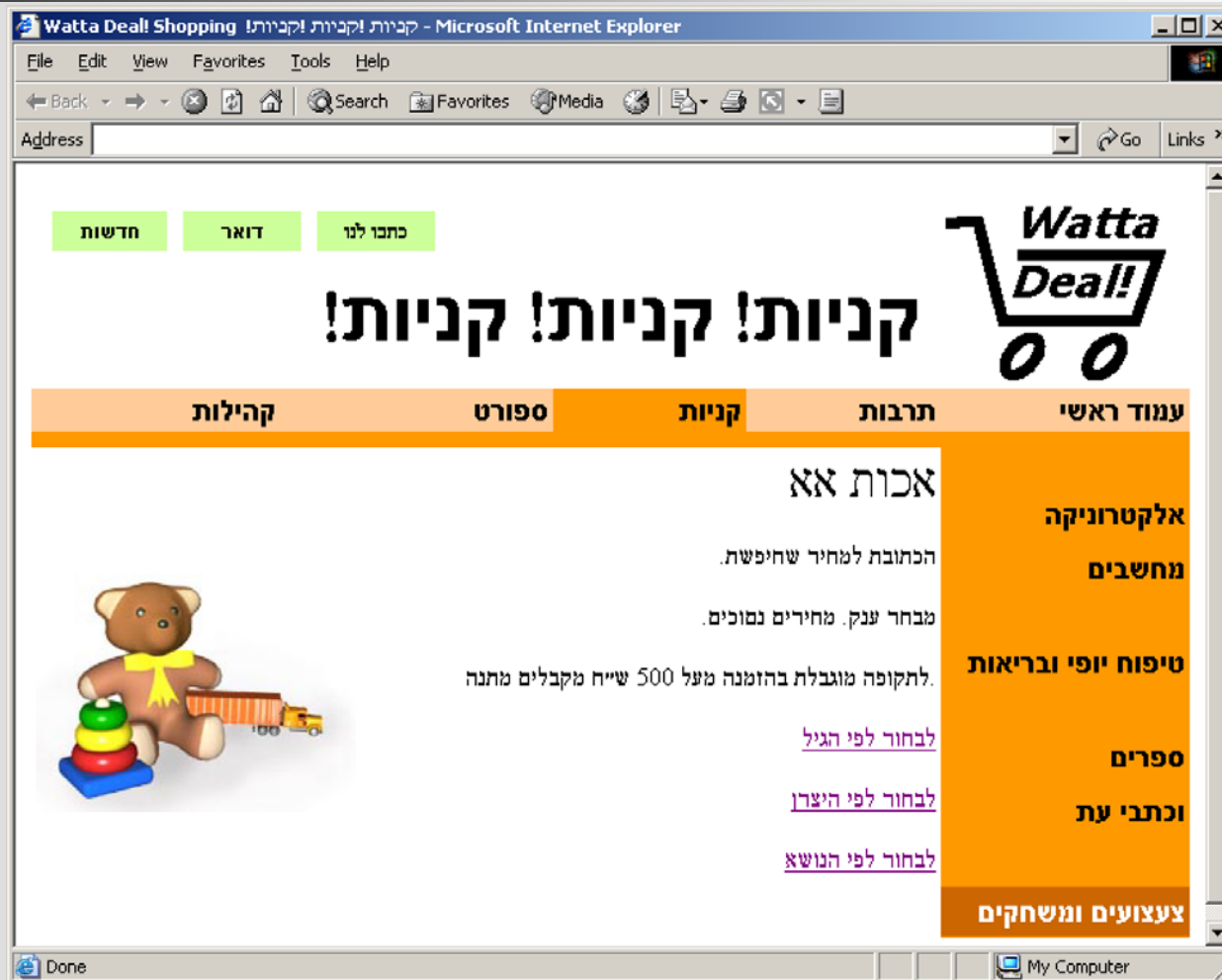
---

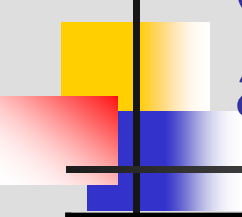
- ◆ Page layout should match the reading direction
- ◆ Left alignment in a left-to-right language
- ◆ Right alignment in a right-to-left language

# Page in a left-to-right language



# Same page in a right-to-left language





# Common English words have longer equivalents in other European languages; allow more space

	<i>Spanish</i>	<i>French</i>	<i>German</i>
News	Noticias	Actualités	Nachrichten
Exit	Salir	Quitter	Verlassen
Sign In	1. Login	Identifiez-vous	Melden Sie sich
	2. Validación de Clave		
	3. Identifícate		
Print	Imprimir	Imprimer	Drucken
Buy	Compra	Achetez	Einkaufen
Next	Siguiente	Suivant	Forward
File	Archivo	Fichier	Datei





## 13.6 User Testing

---

- ◆ Identify people living in the target locale to help recruit users, schedule tests, and find translators
- ◆ Localize the test:
  - ⊕ Test scenarios
  - ⊕ Introduction
  - ⊕ Informed-consent document
- ◆ Conduct the testing in the target language
- ◆ Allow more time for testing



# Summary

---

In this chapter you learned about:

- ◆ The differences between internationalization and localization
- ◆ Two approaches to text translation—and don't use machine translation alone
- ◆ Cultural considerations that extend beyond language
- ◆ Screen layout guidelines to accommodate globalization
- ◆ Tips for testing with international users