User-Centered Website Development: A Human-Computer Interaction Approach
Chapter 4: Content Organization

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PowerPoint slides by Dan McCracken, with thanks to Rosalee Wolfe and S. Jane Fritz, St. Joseph’s College
Credits

- Slide 17: Courtesy of autobytel.com.
- Slide 23: Courtesy of Nordstrom, Inc.
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4. Content Organization

In this chapter you will learn about:

- **Organizational schemes**: classification systems for organizing content into groups
- **Organizational structures**: defining the relationships among the groups
- **Research and interview techniques**: How to discover a way to organize things so people can find what they want
- **Controlled vocabularies and thesauri**
You have a mass of content that you want your users to be able to find
How to Organize so Users Can Find Things?

- First, group related things, forming the groups in terms of the way users think. (How? Keep reading.)

Fact 19
Fact 15
Fact 13
Fact 14
Fact 8

Fact 17
Fact 10
Fact 2

Fact 4
Fact 12
Fact 3
Fact 5

Fact 9
Fact 6
Fact 20
Fact 16
Fact 7
Fact 18

Fact 1
Fact 11
This is an **organizational scheme**

- Now give names to the groups, or have the users do that

- **Group A**
  - Fact 19
  - Fact 15
  - Fact 13
  - Fact 14
  - Fact 8

- **Group B**
  - Fact 17
  - Fact 10
  - Fact 2

- **Group C**
  - Fact 1
  - Fact 11

- **Group D**
  - Fact 9
  - Fact 6
  - Fact 20
  - Fact 16
  - Fact 7
  - Fact 18

- **Group E**
  - Fact 4
  - Fact 12
  - Fact 3
  - Fact 5
Next: how do the groups relate to each other?

Perhaps in a hierarchy:
How do the groups relate to each other, continued

- Perhaps with hyperlinks:
Those are two organizational structures

- **Remember:**
  - A *scheme* groups similar things together
  - A *structure* shows how those groups are related

- End of introductory overview; now let’s get back to the details of organizational schemes and organizational structures
- And how we discover how users think: how *they* see the groupings
4.2 Organizational Schemes

- Familiar in everyday life:
  - Phone book
  - Appointment book
  - Shopping mall diagram with store locations
These are **exact** organizational schemes

- **Alphabetical:** phone book, for example
- **Chronological:** appointment book, for example
- **Geographical:** shopping mall diagram, for example
Not always possible

- Where can I find sardines packed in water, with no salt added?
  - In the canned fish section?
  - In the dietetic foods section?
Supermarket is an example of an *ambiguous* organizational scheme

- “Ambiguous” often has a negative connotation, which is not intended here. We use it to describe organizational situations where there is more than one reasonable way to group things, as with the low-sodium tomato soup.

- We identify four types of ambiguous organizational schemes:
  - Topical
  - Task-oriented
  - Audience-specific
  - Metaphor-driven
Topical organizational scheme

- Organizes content by subject
- Examples:
  - Library subject index
  - Encyclopedia
  - Chapter titles in textbooks
  - Website home pages (usually combined with other schemes as well)
Task-Oriented Organizational Scheme

- Organizes content by what user wants to do.
Task-oriented organizational scheme

Example: Autobytel.com
Audience-specific organizational scheme

- Useful when there are two or more distinct user groups
- User may navigate to appropriate page and bookmark it
Audience-specific organizational scheme

- Example: Bank of Montreal
Metaphor-driven organizational scheme

- Shows group by a visual metaphor.
- Not many examples, because it is difficult to find metaphors that will work with all users.
- Possible example: pet supply store:
See the problem?

- This is a hamster, but what if your user thinks it’s a rat, and hates rats?
Hybrid organizational scheme

- Combines multiple organizational schemes
- Quite common, but must be done with care to avoid confusion
- Example: Nordstrom
Hybrid organizational scheme example
4.3 Organizational Structures

- Review:
  - Organizational schemes create groups
  - Organizational structures define the relations between groups
Types of organizational structures

- Hierarchy
- Hypertext
- Database
Hierarchical organizational structure

- Structuring by rank or level
- A tree, in computer science terms
An organization chart is a hierarchy

President

Marketing

Research

Manufacturing

Distribution

A B C D E

Etc.
Definitions

- **Breadth of a hierarchy:** the number of links available at each level
- **Depth of a hierarchy:** the number of levels
- Broad shallow hierarchies offer many choices at each level
- Narrow deep hierarchies require many clicks to get to the bottom level
- Users prefer broad shallow hierarchies
Hypertext organizational structures

- Almost always combined with other structures
- Consists of adding links to a page
- Hard to find a commercial website that does not use hypertext
Database organizational structures

- Database organizational structure provides a bottom-up view, whereas a hierarchy provides a top-down
- Both have their place
- In a database structure the user fills in data, and is then taken directly to the right page. One click, when it works ideally.
Database example: selecting a car model

The Future of Online Auto Buying

Find Your New Vehicle

Compare Your Selection to Other Models
Read the specs on over 200 GM models. Then see exactly how our vehicles stack up to our competition, with information gathered by an independent third-party.

Pick one or more:

Select Make   Body Style   Price Range
Select Any...  Select Any...  Select Any...

Browse and Compare Vehicles

Search Dealer Lots
After you identify the model you’re looking for, choose an actual vehicle right down to the Vehicle Identification Number (VIN). Our inventory is updated daily. Contact your dealer for their best purchase price. No hassle, No obligation.

2000   Select Make...

Select a Model...

Search Dealer Lots For This Vehicle

Have a Question? Click Here to send a message or Call the GM BuyPower Center at 1-800-462-8976
Controlled vocabulary

- Predetermined set of terms that describe a specific domain
- There are no synonyms
- Only one term describes a concept
- Can help combat the ambiguity of English
Thesaurus

- Contains
  - Synonyms
  - Broader terms
  - Narrower terms
  - Variants

- Used in conjunction with a controlled vocabulary, makes searching more effective
Problem: how do you know what your users’ categories are?
  - Will they look for a sweater under Winter Wear or under Men’s Clothing?
  - What do they expect to find under “About Us”?
  - What can you put on the home page for a college that will lead most directly to the tuition?

You don’t know!
Not until you ask your users . . .
. . . who, of course, have no idea what you mean by “What are your categories?”
Card sorting provides an answer

- Devise a list of about 40 questions that a user might have
- Write each question on a card; number cards on back
- Ask each user to sort the cards into piles, where the cards in each pile seem related to each other
- Ask the user to give a name to each pile
- Do this with ten or more users
- Do statistical analysis of the clustering in the groups
Cluster analysis

- Can be done “be eyeball,” just looking at the piles for patterns
- Much better: use cluster analysis software
- See the text’s companion website to download CardZort, by Jorge Toro of DePaul University
Summary

In this chapter you learned about:

- **Organizational schemes**: classification systems for organizing content into groups:
  - Exact: Alphabetical, Chronological, Geographical
  - Ambiguous: Topical, Task-oriented, Audience-specific, metaphor-driven

- **Organizational structures**: defining the relationships among the groups:
  - Hierarchy, Hypertext, Database

- Controlled vocabularies and thesauri
- Card sorting