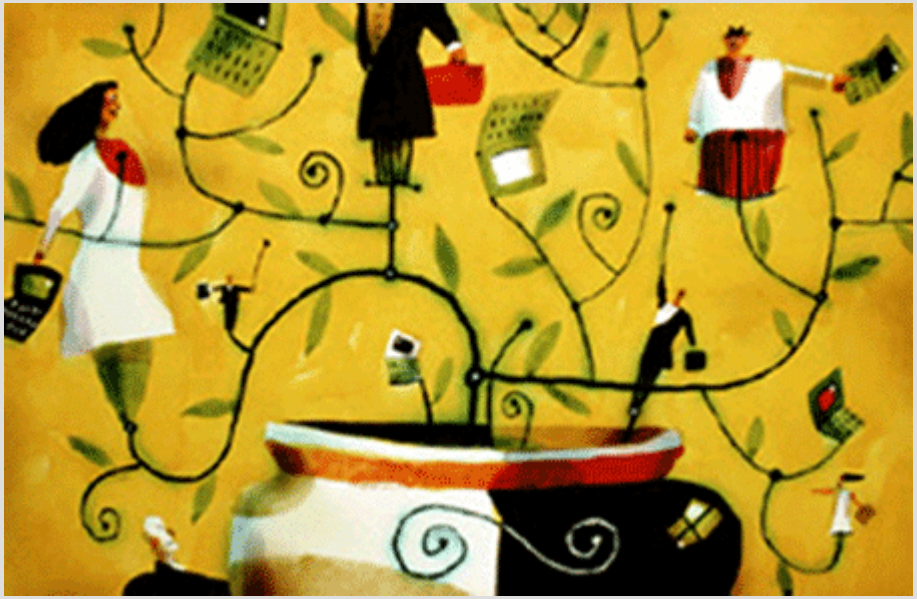
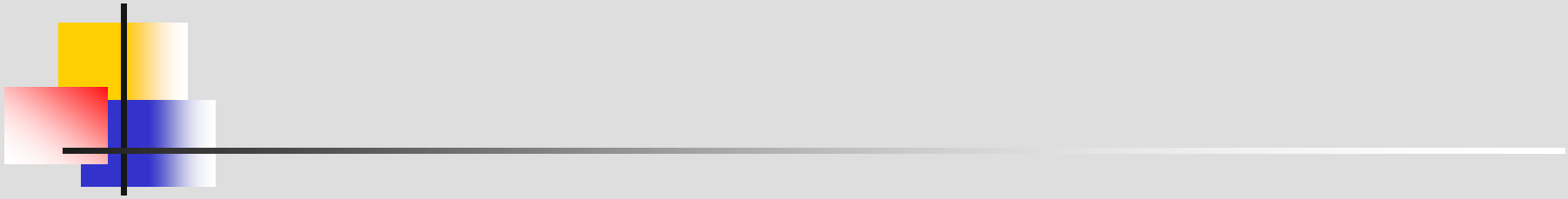
User-Centered Website Development: A Human-Computer Interaction Approach





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

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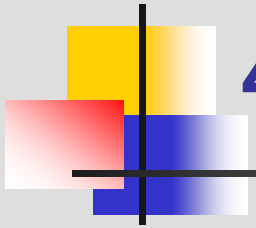


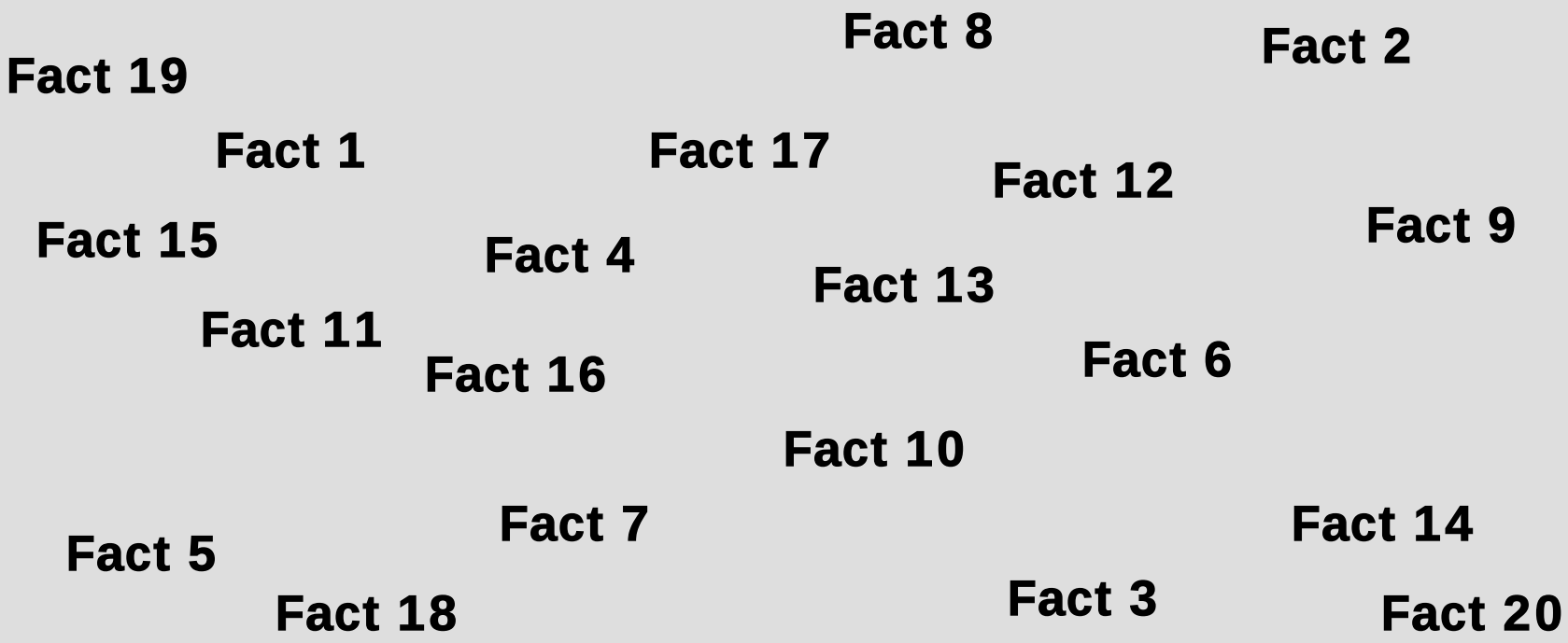
4. Content Organization

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

Graphic overview: scheme and structure

- 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 4
Fact 12
Fact 3
Fact 5

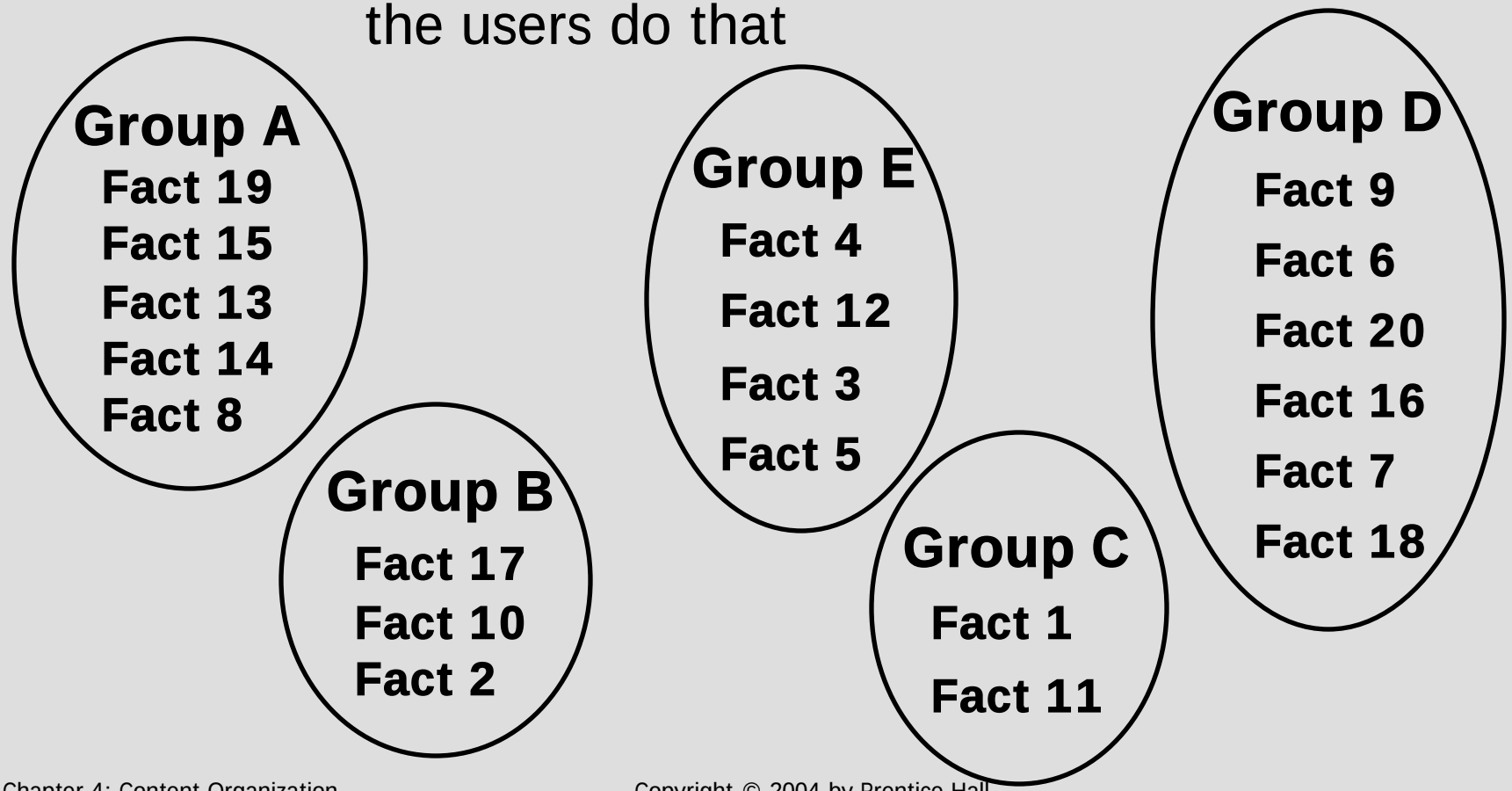
Fact 9
Fact 6
Fact 20
Fact 16
Fact 7
Fact 18

Fact 17
Fact 10
Fact 2

Fact 1
Fact 11

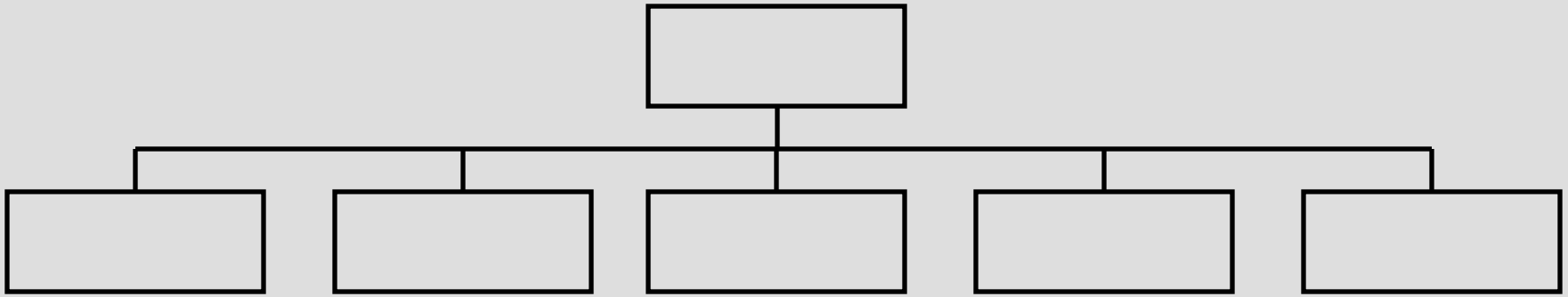
This is an **organizational scheme**

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



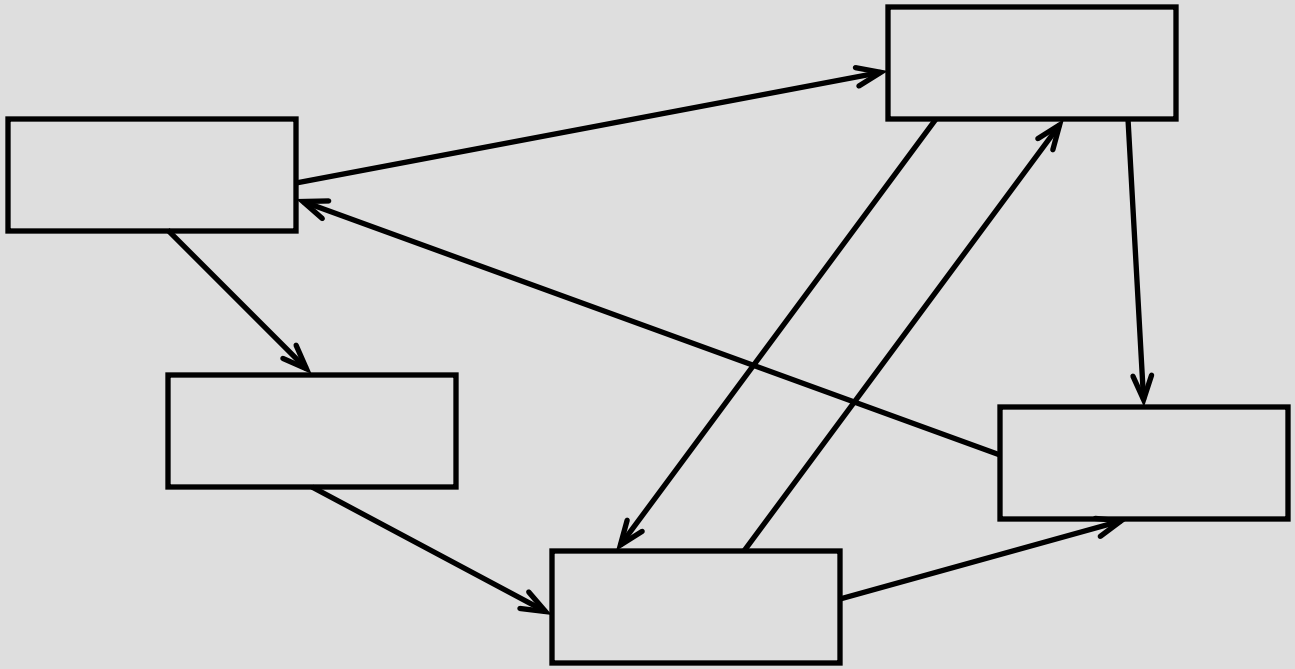
Next: how do the groups relate to each other?

- Perhaps in a hierarchy:



How do the groups relate to each other, continued

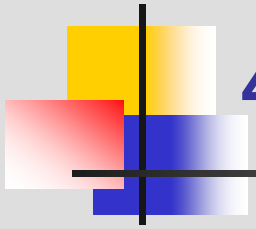
- Perhaps with hyperlinks:



Those are two organizational structures

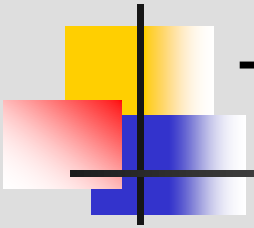
- **Remember:**
- A scheme groups similar things together
- A structure shows how those groups are related

- 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

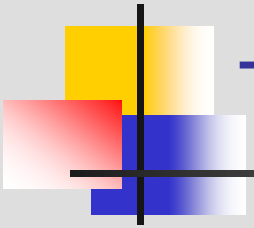
- Alphabetical: phone book, for example
- Chronological: appointment book, for example
- Geographical: shopping mall diagram, for example

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?

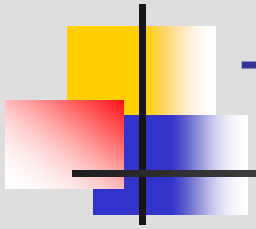
Supermarket is an example of an ambiguous organizational scheme

- “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)

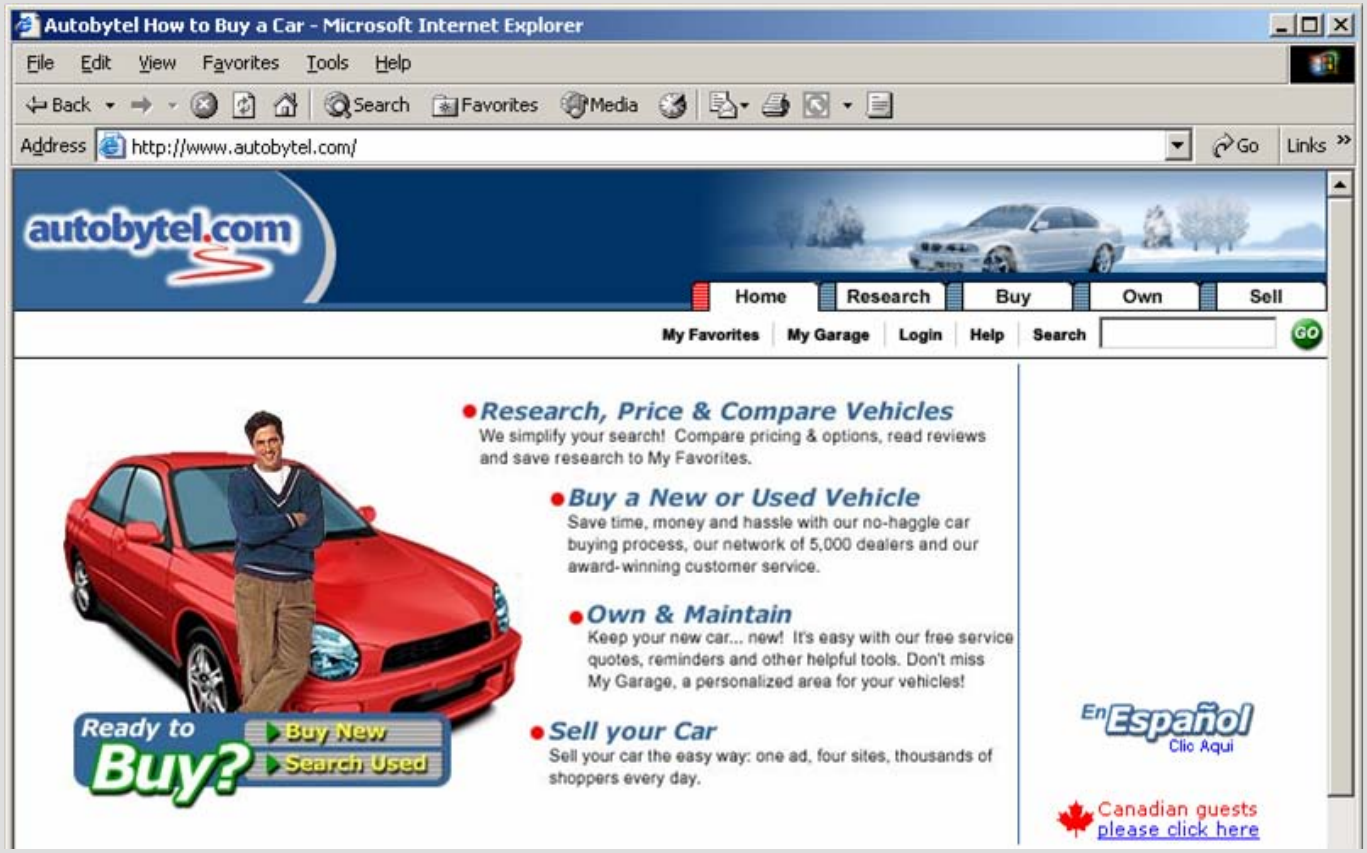


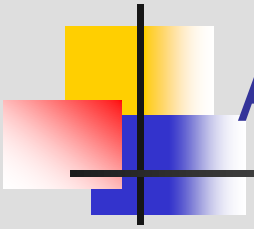
Task-Oriented Organizational Scheme

- Organizes content by what user wants to do.

Task-oriented organizational scheme

- Example: Autobytel.com





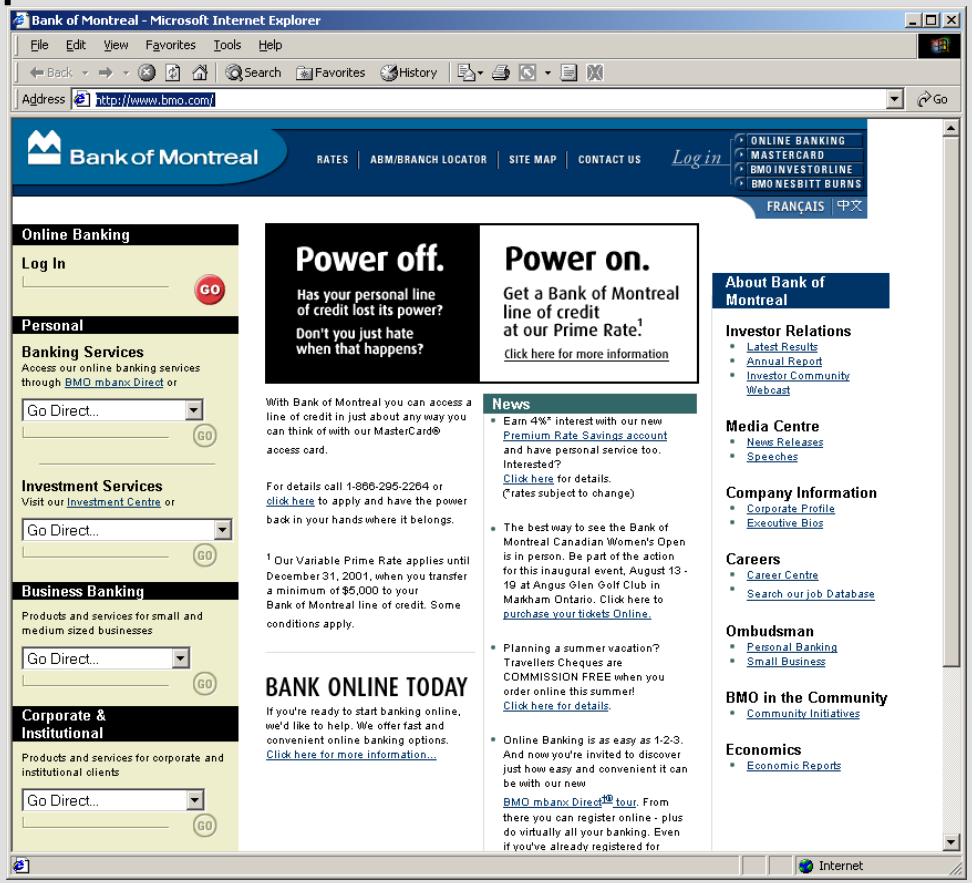
Audience-specific organizational scheme

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

Audience-specific organizational scheme

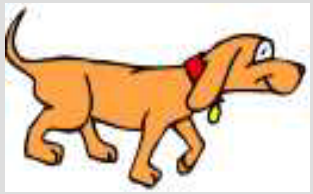
- Example: Bank of Montreal

Specific audiences



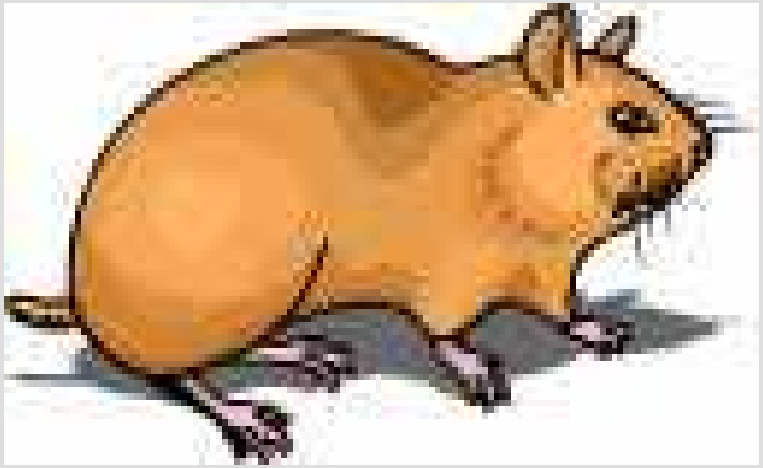
Metaphor-driven organizational scheme

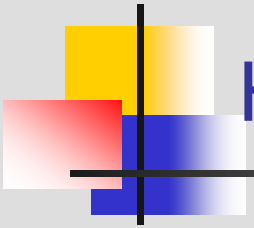
- Shows group by a visual metaphor.
- Not many examples, because it is difficult to find metaphors that will work with all users.
- Possible example: pet supply store:

See the problem?

- This is a hamster, but what if your user thinks it's a rat, and hates rats?

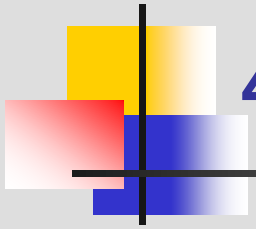




Hybrid organizational scheme

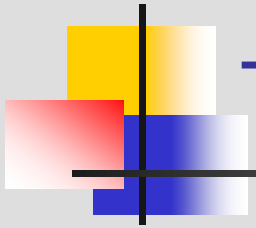
- Combines multiple organizational schemes
- Quite common, but must be done with care to avoid confusion
- Example: Nordstrom

Hybrid organizational scheme example



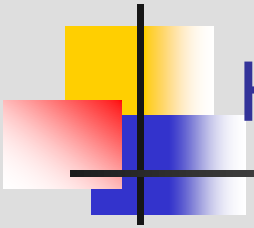
4.3 Organizational Structures

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



Types of organizational structures

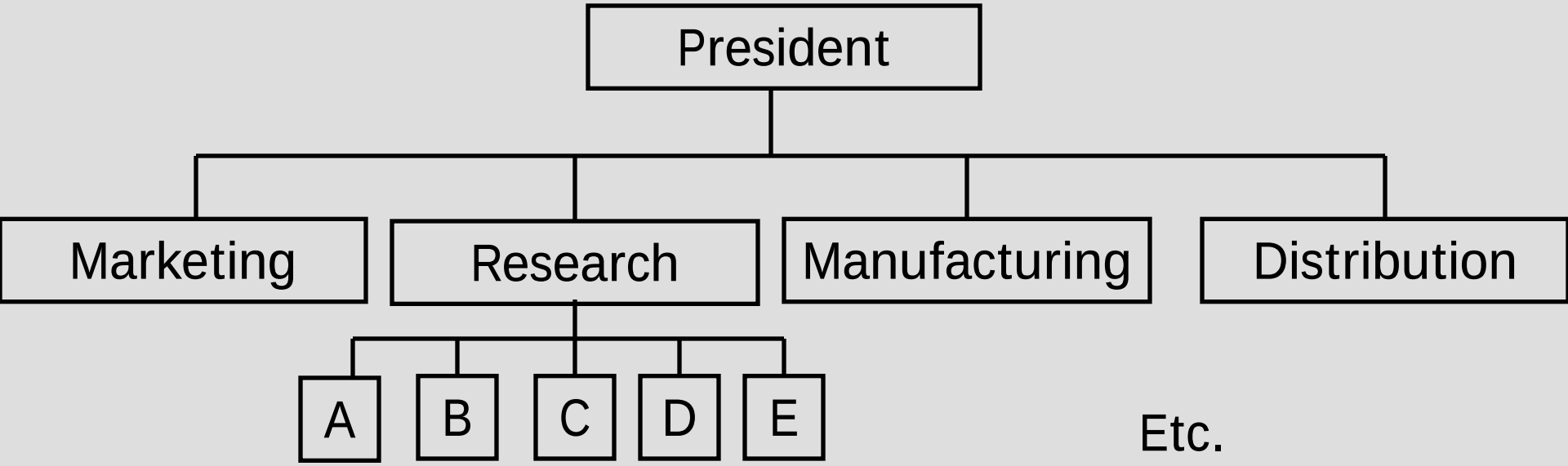
- Hierarchy
- Hypertext
- Database

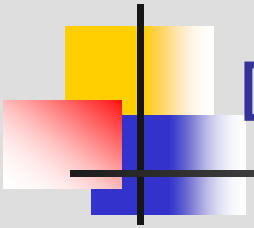


Hierarchical organizational structure

- Structuring by rank or level
- A tree, in computer science terms

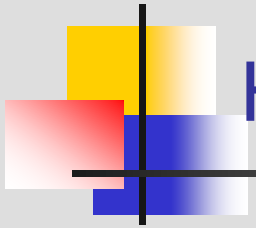
An organization chart is a hierarchy





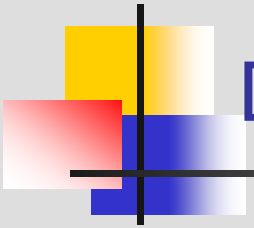
Definitions

- 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

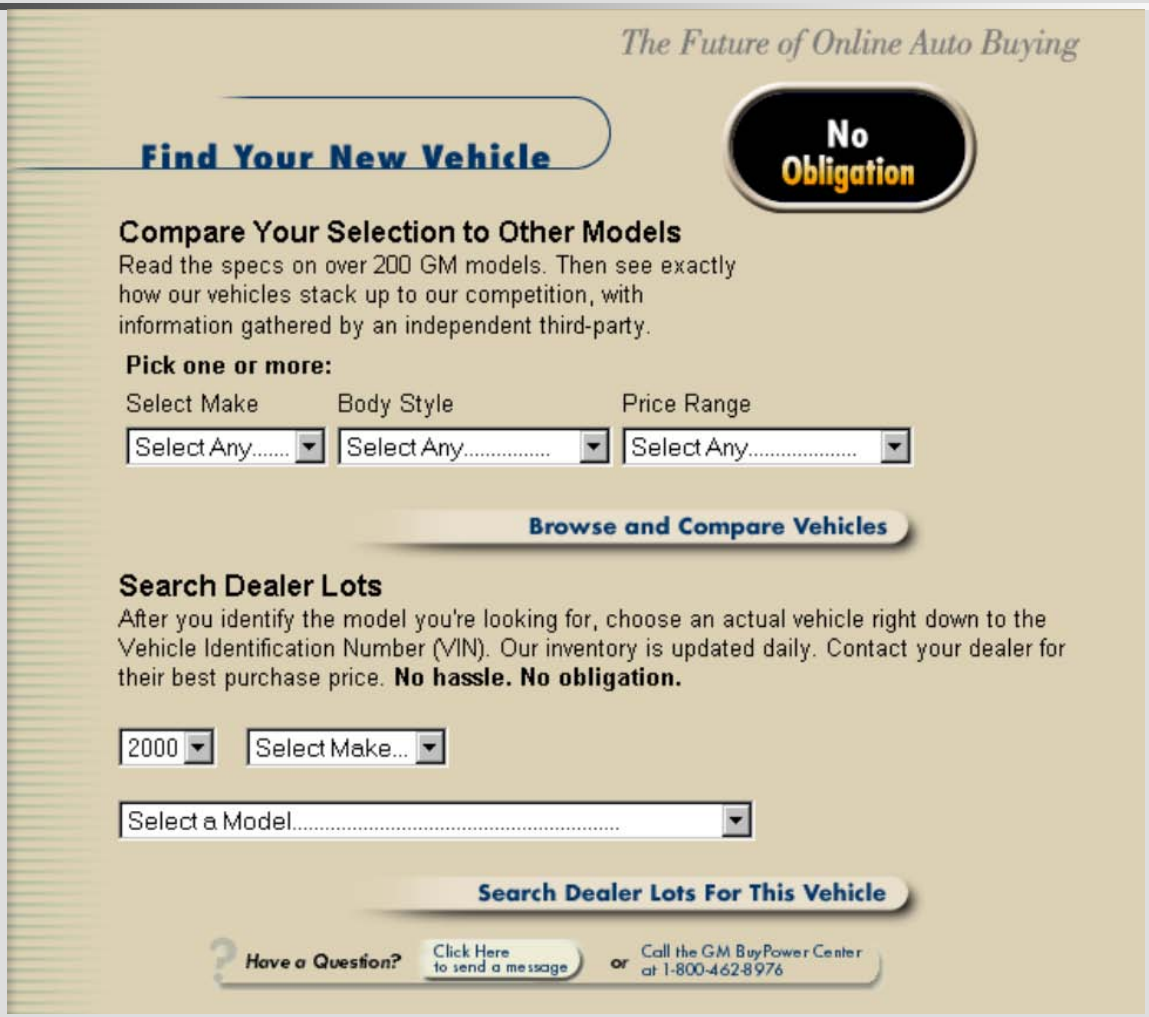
- Almost always combined with other structures
- Consists of adding links to a page
- Hard to find a commercial website that does not use hypertext

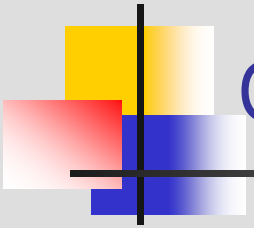


Database organizational structures

- 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.

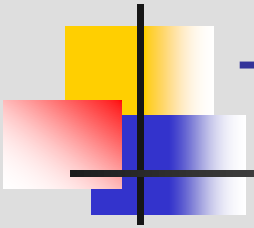
Database example: selecting a car model





Controlled vocabulary

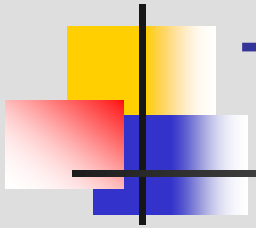
- Predetermined set of terms that describe a specific domain
- There are no synonyms
- Only one term describes a concept
- Can help combat the ambiguity of English



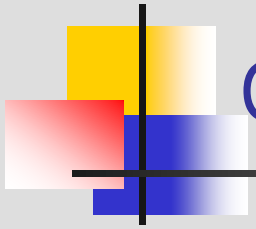
Thesaurus

- Contains
  - Synonyms
  - Broader terms
  - Narrower terms
  - Variants
- Used in conjunction with a controlled vocabulary, makes searching more effective

4.5 Research and Interview Techniques

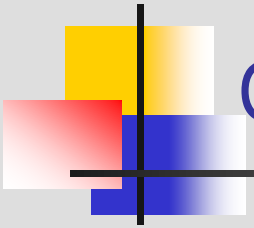


- Problem: how do you know what your users' categories are?
  - Will they look for a sweater under Winter Wear or under Men's Clothing?
  - What do they expect to find under "About Us"?
  - What can you put on the home page for a college that will lead most directly to the tuition?
- You don't know!
- Not until you ask your users . . .
- . . . who, of course, have no idea what you mean by "What are your categories?"



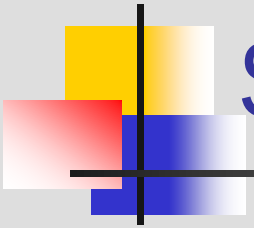
Card sorting provides an answer

- 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