Information organization
What we will cover today...

- Why do we organize information?
- What are the basic retrieval tools?
- How did we arrive at the current state of information organization?
Organization in everyday life

• Organization is part of our daily life.
• Think about our last brainstorming activity.
  – Clothes, shoes, dishes...
  – Books, Music CDs, DVDs, Photos...
  – Digital objects
  – Collectibles
  – ...

Why organize? (Taylor, 2004; pp.1-2)

• “There seems to be a basic drive in humans to organize.”
• “We organize because we need to retrieve.”
• Helps us learn and work better.
• Allows us to preserve records of human endeavors
Why do we organize, really?

• Why do some people feel good about organizing?
• Why do I organize my place when a family member or a friend visits?
• Why do I organize my files and folders on my computer?
• Why do I put certain things in a particular place in my house?
Various aspects of the benefits of organizing

- Psychological
- Social
- Functional
- Aesthetic
- ...?
Major activities involved in organization of information

• Identifying the existence of information objects
• Identifying parts of aggregate information objects
• Systematically pulling together these information objects into collections
• Producing lists of these information objects
• Providing useful access to these information objects
• Providing the means of locating each object

(Taylor, pp. 4-6)
Organization of information in different environments

- Libraries
- Archives
- Museums and Art Galleries
- The Internet
- Data administration environments
- Knowledge management environments
  (Taylor, 2004; pp.7-23)
- ...And in our everyday life!
Example

How is your closet organized?
Example

How is your closet organized?

- By type?
- By color?
- By usage/purpose?
- By frequency of use?
- By material?
- By length/size?
- By season?
- By fit?

- By price?
- By favorite to least favorite?
- By how clean they are?
- By how the pieces match?
- By how old they are?
- Combination of some of these?
- ...or just random?
Basic retrieval tools (Taylor Chapter 2)

- **Bibliographies**: lists of information objects
  - Pathfinders: lead users to specific subject areas
- **Catalogs**: provide access to individual items within collections of information objects
- **Indexes**: provide access to analyzed contents of information object
- **Finding aids**: descriptions of archival collections
- ** Registers**: the primary control tools for museums
- **Search engines and databases**: computerized retrieval tools
Key concepts in information retrieval system (Taylor, 2004; Chapter 2)

• **Retrieval tools:**
  Systems created for retrieving information that contain surrogate records of information objects (e.g., index, catalog, search engine)

• **Surrogate records** (description/metadata):
  Records that serves as a short representation of an information object presenting the characteristics of the object
Key concepts in information retrieval system (cont’d.)

- **Access points:**
  Any information that is used for arranging and retrieving surrogate records in an organized system

- **Indexer** (cataloger):
  An agent who determines access points for the surrogate records
Examples of the key concepts in information retrieval system

*Think back to the card catalog activity we did in the very first class.*

- Retrieval tool: Card catalog
- Surrogate record: Index card
- Access points: Your name and your major
- Indexer: Cameron
Catalogs

• Catalogs provide access to individual items within collections of information objects
• Different forms: Book, Card, COM, OPAC
• Different arrangements: Classified, Alphabetical, Chronological
Cutter’s “Objects” of a catalog (1904)

1. To enable a person to find a book of which either:
   (A) the author
   (B) the title
   (C) the subject
   \[\text{(A) and (B) \text{ or } (C)}\] is known.

2. To show what the library has
   (D) by a given author
   (E) on a given subject
   (F) in a given kind of literature

3. To assist in the choice of a book
   (G) as to the edition (bibliographically).
   (H) as to its character (literary or topical).
Purpose of an organizational system

• **Location:**
  Finding out where an object is physically located.

• **Collocation:**
  Bringing together of records and/or information objects that are related in some way (Taylor, 2004; p.360)

• **Selection:**
  Choosing an object that meets the user’s need
Development of information organization in Western civilization

- Lists (purpose unknown): 2000 B.C.E. –
- Inventories: 9th – 13th centuries
- Shelflists: 14th century
- Use of references: 15th century
- Finding lists: 17th century
- Collocating devices: 19th century
- Rules of cataloging: 19th century
Information organization in the 20th Century

• **Description:**
  Data that describes an information package, such as its title, its associated names, its edition, its date of publication, its extent, and notes identifying pertinent features (Taylor, 2004; p.362)

• **Subject Access:**
  The provision to users of the means of locating information using *subject terminology* and/or *classification notations* (Taylor, 2004; p.376)
Subject access

• **Verbal subject access:**
  (e.g., Library of Congress Subject Headings, Sears, Art and Architecture Thesaurus)

• **Classification:**
  (e.g., Dewey decimal classification, Universal decimal classification, Colon classification, Library of Congress classification)

*We will learn more about these later in the semester.*
Some historical figures

- Anthony Panizzi (1797-1879): Ninety-One Cataloguing Rules
- Charles Ammi Cutter (1837-1903): Cutter numbers
- Melvil Dewey (1851-1931): Dewey Decimal Classification
- Paul Otlet (1868-1944) and Henri La Fontaine (1854-1943): Universal Decimal Classification
- Vannevar Bush (1890-1974): Memex
- S. R. Ranganathan (1892-1972): Colon Classification
- Frederick Kilgour (1914-2006): OCLC
MEMEX

• “As we may think” by Vannevar Bush in 1945

www.asquare.org/networkresearch/?cat=19
MEMEX (Bush, 1945)

• “a future device for individual use, which is a sort of mechanized private file and library... A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory.”

• “...associative indexing, the basic idea of which is a provision whereby any item may be caused at will to select immediately and automatically another. This is the essential feature of the memex. The process of tying two items together is the important thing.”
Exercise 2: Organizational systems

• We'll divide into groups of 3 or 4. In your group, think about organizational systems, tools, etc. which we use every day. Think about how the things in our lives are arranged, ordered, and organized.

• Don't only think of high-design organizational systems like filing cabinets and library catalogs, but also the low-design and ad hoc systems we use like the stacks of mail on your coffee table or the most-recently-used pile of laundry in your bedroom.
Exercise 2: Organizational systems (cont’d.)

Together, brainstorm a list of all the organization systems you can think of.

• What are the items in these respective locations?
• Why are they where they are? Why aren't they somewhere else?
• How are they arranged?
• Who put them there? Who is responsible for organizing them?
• What about outside your home, how are things arranged in the larger world around you? At your job? In your car? In your classes?
Exercise 2: Organizational systems (cont’d.)

• You should be able to come up with a list of at least 20 different organizational systems. In your group, discuss the following questions and be prepared to share your comments with the rest of the class.
Exercise 2: 
Organizational systems (cont’d.)

For each system:
• What items are being organized? How many items?
• What do the items have in common? How are they different?
• How are the items arranged or organized within the collection?
• Who maintains the organization?
• How stable is the collection? How often do new things get added?
• What is the primary use of the collection? (i.e., what are the things used for?)
References
