Reference Books and the Organization of Knowledge

History of Information, July 19, 2010

Women, Fire and Dangerous Things

- Lakoff
  - "Framing"
    - To control a metaphor is to control the referent's meaning; use of said metaphor implies a subconcious support of the concept
      - Tax Relief vs. Tax Cuts
      - Death Tax vs. Estate Tax

Lakoff (2)

- "Women, Fire, and Dangerous Things: What Categories Reveal About the Mind"
  - Australian aboriginal language has a category (*balan*) that includes these signifiers, among others
    - "The inference is based on the common idea of what it means to be in the same category: things are categorized together on the basis of what they have in common."
    - But this classical view is only part of the story
      - Most categorization is "automatic and subconscious", and is often performed on abstract, rather than physical entities.

Categorization

- What sorts of categorizations occur in society on a daily basis?

Categorization

- What sorts of categorizations occur in society on a daily basis?
    - Ethnic identification / racial profiling
    - "Good/Desirable" Schools/Workplaces
    - Political / National affiliation
    - Email vs. Spam
    - Others?

- Would you have perceived this course differently if it had been listed under Dance Studies? Forestry? Folklore?

"Knowledge"

- Epistemic Hierarchy
  - Data →
    - Categorized, organized, rationalized by the processing mind's perspective
  - Information →
    - Authentication, verification
  - Knowledge →

    - Broadly codified and integrated both with knowledge from other disciplines and with a culture or society
  - Wisdom
    - "involves forgetting as much as remembering and is made up of insights and understandings as to what is true, right, and lasting"

Shifting Conceptions of Knowledge, 1500-1800

- Renaissance understanding of knowledge
- Varieties of knowledge: private/public; *scientiae/artes;* liberal/ useful, etc.
- Burke traces shifts in the "tripod" of the curriculum, library (including the bibliography) and the encyclopedia.

▶

The 15th Century Curriculum

- The *enkyklios paideia* ("circle of learning"):
  - Trivium: grammar, logic, rhetoric
  - Quadrivium: arithmetic, astronomy, geometry, music
  - The three philosophies: ethics, metaphysics, "natural philosophy"
  - Higher faculties: theology, medicine, law

The 15th Century Curriculum

▶ Scholarship and education exclusively in Latin until the Renaissance

▶ System of knowledge is "closed"; built around classical sources and religious texts (courses organized around texts, not subjects)

▶ Organization of knowledge is fixed and "natural"

Breaking with the Past

▸ It would disgrace us, now that the wide spaces of the material globe, the lands and seas, have been broached and explored, if the limits of the intellectual globe should be should be set by the narrow discoveries of the ancients.

- Francis Bacon, *The Advancement of Learning, 1605*

Breaking with the Past

▸ Within 200 years, something like the modern system emerges.

▸ Responses to influences that are:

  ▸ Pragmatic/material

  ▸ Philosophical/academic

  ▸ Symbolic/political

    ▸ (Not independent…)

Bacon

▸ Reflecting Renaissance's larger context, his categorization scheme puts man at center

  ▸ Nature (astronomy, meteorology, etc.)

  ▸ Man (anatomy, powers, actions)

  ▸ Man acting on nature (medicine, visual arts, arithmetic)

Language and Politics

- "All words, good and bad…"
  - Lord Chesterfield

- 1647 - Vaugelas elevates "usage" above individual as proper legislator of language
  - Whose usage?
  - What were the goals of the Academie Francaise?

- 1747 – Johnson presents aim of "fixing" language once and for all
  - What was the subtext of the English dictionary efforts?
  - What was Johnson's stance by the time the dictionary was completed?

Dictionary vs. Encyclopedia

- What's the difference?

Dictionary vs. Encyclopedia

▶ "The distinction between a dictionary and an encyclopedia is easy to state but difficult to carry out in a practical way: **a dictionary explains words, whereas an encyclopedia explains things.** Because words achieve their usefulness by referring to things, however, it is difficult to construct a dictionary without considerable attention to the objects and abstractions designated."
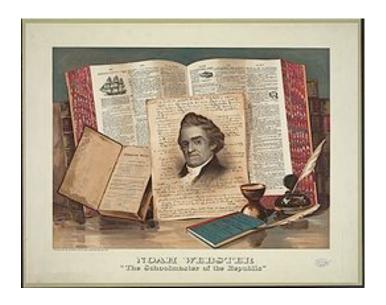
-Allen Walker Read, 1976

Diderot's *Encyclopedie*

▸ "one of the most politically significant reference books in human history" (McArthur, p. 104)

  ▸ "did not simply inform; it incited" (p. 105)

▸ What was so incendiary about it?

▸ What were the consequences for the *Encyclopedie* and Diderot, and why?

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Diderot's Encyclopedie

- "one of the most politically significant reference books in human history" (McArthur, p. 104)
  - "did not simply inform; it incited" (p. 105)

- What was so incendiary about it?
  - Challenged traditional Christian belief system
  - Advocated social equality/engineering

- What were the consequences for the *Encyclopedie* and Diderot, and why?
  - Relative immunity
    - Traditional mystique around reference works
    - Distributed nature of articles worked against preemption

Webster

▸ "This was the radical *American Dictionary of the English Language*." –McArthur, p. 100

▸ What was so radical about Webster's work?

Webster

- "This was the radical *American Dictionary of the English Language*." –McArthur, p. 100
- What was so radical about Webster's work?
  - Consistent orthography
    - Magick ➜ Magic
    - Colour ➜ Color
  - Polycentric High Mode
    - "good" American written sources just as "good" as British
  - Multiuse reference catered to the needs of a new kind of territory
  - Invested the publishing house, rather than academia, with the power to arbitrate language in this way

Non-alphabetical schemes

▸ **Wilkins' universal language (1668)**

  ▸ Ideogram-based

▸ **Roget's Thesaurus**

  ▸ Similar thematic approach

  ▸ "the Thesaurus is the converse of a dictionary and some kind of analogue to the brain…whatever does happen in our minds, when we order and retrieve 'words' and 'ideas', it is not done alphabetically."

   - McArthur, p. 123

Categorization Online

▸ Yet Another Hierarchical Officious Oracle (YAHOO!)

▸ Wikipedia

▸ Tagging with del.icio.us, flickr, etc.

▸ Non-human categorization

   ▸ Are search engine page ranks a form of categorization?

      ▸ Pages that are relevant to your query vs. Pages that are less so?

      ▸ Are they objectively categorized?

Doctorow and the Democratization of Categorization

▶ **2. The problems**

　　▶ There are at least seven insurmountable obstacles between the world as we know it and meta-utopia. I'll enumerate them below:.

　　▶ **2.1 People lie**

　　▶ **2.2 People are lazy**

　　▶ **2.3 People are stupid**

　　▶ …

　　　　- Cory Doctorow, Metacrap, 2001

▶ Src: http://www.well.com/~doctorow/metacrap.htm

▶ Did the Academie Francaise achieve its stated goal of "elevating" French from old vernaculars?

‣ **The French Get Lost in the Clouds Over a New Term in the Internet Age (*Wall Street Journal, October 14, 2009*)**

To translate the English term for computing resources that can be accessed on demand on the Internet, a group of French experts had spent 18 months coming up with "*informatique en nuage*," which literally means "computing in cloud"…

Keeping the French language relevant isn't easy in the Internet age. For years, French bureaucrats have worked hard to keep French up to date by diligently coming up with equivalents for English terms. Though most French people say "*le week-end*" and "*un surfer*," the correct translations of the terms are "*fin de semaine*" ("end of the week") and "*aquaplanchiste*" ("water boarder"). A "start-up" company is referred to as "*jeune pousse*," or "young shoot" (the term *pousse* is used for vegetable sprouts), while the World Wide Web is translated as "*toile d'araignée mondiale*" (literally, global spider web).

But technological advancements mean new Anglicisms are spreading over the Internet at warp speed, leaving the French scratching their heads…

"We won't cut people's heads off if they don't use it," says Mr. North [head of France's General Commission of Terminology and Neology]. But, he adds: "Language is what brought this country together."

‣ Src: http://online.wsj.com/article/SB125544523318682497.html