Dictionaries and the Organization of Knowledge

Geoff Nunberg
History of Information: 10/4/06
The Organization of Knowledge

Cf. the notion of the "trésor"

Libraries, anthologies, dictionaries, in a word "treasuries" [trésors], alongside of encyclopedic collections, delimit a vast territory on which are cast the signs required for knowledge, the expression of identities, and communication among the members of the group.

- Alain Rey, "Les trésors de la langue," 1986
The Spatialization of Print Discourse

Images of public sphere in print forms and institutions ("institutions littéraires");

Cf. the notion of the "trésor"

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Ibn Qutayba (9th c.): "Book of the Best Traditions"

1. Power
2. War
3. Nobility
4. Character
5. Learning and eloquence
6. Asceticism
7. Friendship
8. Prayer
9. Food
10. Women
The Classificatory Urge: Thematic Organization

Vincent de Beauvais, Speculum triplex, 1244, in 3 divisions:

Speculum naturale: God, angels & devils, man, the creation, and natural history

Speculum doctrinale: Grammar, logic, ethics, medicine, crafts…

Speculum historiale: History of the world…
Early Wordbooks

Early dictionaries are usually bilingual (e.g., Latin-Cornish), organized thematically.

First monolingual dictionaries begin to appear in early c. 17. Cf Robert Cawdrey's *Table Alphabetical of Hard Usual English Words*, 1604 ("for the benefit and helpe of Ladies, Gentlewomen, or other unskillful persons")
"Inkhorn words" -- learned words coined from Greek or Latin: absurdity, dismiss, celebrate, encyclopedia, habitual, ingenious (but also eximious, "excellent"; obstetate, "bear witness"; adnichilate, "reduce to nothing")

Need to make the vernacular an adequate vehicle for philosophy, history, etc.

Cawdrey: 'far journied gentlemen' collect words on their travels and, coming home, 'pouder their talke with over-sea language.'

Among all other lessons this should first be learned, that wee never affect any straunge ynkehorne termes, but to speake as is commonly received: neither seeking to be over fine or yet living over-carelesse, using our speeche as most men doe, and ordering our wittes as the fewest have done. Thomas Wilson, Arte of Rhetorique, 1553
The Growing Sense of Crisis

Cf historical circumstances of emergence of modern form:
Dryden (1693): "we have yet no prosodia, not so much as a tolerable dictionary, or a grammar, so that our language is in a manner barbarous.

Warburton (1747): the language is "destitute of a Test or Standard to apply to, in cases of doubt or difficulty.... For we have neither Grammar nor Dictionary, neither Chart nor Compass, to guide us through this wide sea of Words.”
The Growing Sense of Crisis

Desire to "ascertain" (fix) the language: A major concern among writers -- cf involvement of Addison, Swift, Pope, Johnson, etc.

1712: Swift proposes establishing an academy for the purpose of "correcting, improving, and ascertaining the English tongue": "if [English] were once refined to a certain standard, perhaps there might be ways found out to fix it for ever and ever, or at least till we are invaded and made a conquest of by some foreign state."

"Suffer not our Shakespear, and our Milton, to become two or three centuries hence what Chaucer is at present, the study only of a few poring antiquarians, and in an age or two more the victims of bookworms." Thomas Sheridan

Cf Pope, "Essay on Criticism"

Short is the date, alas! of modern rhymes,
And 'tis but just to let them live betimes.
No longer now that Golden Age appears,
When partiaruth wits survived a thousand years:
Now length of fame (our second life) is lost,
And bare threescore is all ev'n that can boast:
Our sons their fathers' failing language see,
And such as Chaucer is shall Dryden be.
Johnson to the Rescue

1746: J. approached by "conger" of booksellers

1755 appearance of Johnson's *Dictionary of the English Language*. 
At length, what many had wished, and many had attempted in vain, what seemed indeed to demand the united efforts of a number, the diligence and acuteness of a single man performed. The English Dictionary appeared; and, as the weight of truth and reason is irresistible, its authority has nearly fixed the external form of our language; and from its decisions few appeals have yet been made. Robert Nares, 1782

A true evaluation?
Alphabetical listing of words -- the significance of alphabetic rather than thematic organization

Comprehensive listing of English words (why?)

Meanings illustrated by citations from English writers

Tries to distinguish lexical from encyclopedic information (though not always successfully)

**shrewmouse** A mouse of which the bite is generally supposed venomous, and to which vulgar tradition assigns such malignity, that she is said to lame the foot over which she runs. I am informed that these reports are calumnious, and that her feet and teeth are equally harmless with those of any other little mouse. Our ancestors however looked on her with such terror, that they are supposed to have given her name to a scolding woman, whom for her venom they call a shrew.

**oats** a grain which in England is generally given to horses, but in Scotland supports the people

**lexicographer** a writer of dictionaries, a harmless drudge…"

Provides definitions in genus-differentia format, generally substitutable for definiens (word defined)
The Dictionary. the most conservative and conventionalized of literary genres.

Cf Adam Makkai: "Nothing significantly new has happened in lexicography since the first printed dictionaries after Gutenberg invented the printing of books."
Why has the dictionary persisted?

What needs does this form answer to?

Can the dictionary exist in another technological setting?
The Didactic Uselessness of Definitions

Information that D. provides isn't exceptionally accessible or comprehensible.

Cf Miller & Gildea: "The cook stimulated the soup."

Dicts are good on names of concrete categories (*marquis, marionette*)

But def's of abstract terms are didactically useless:

- **circumstance** (MW10) 1. a condition, fact, or event accompanying, conditioning, or determining another: an essential or inevitable concomitant.

- **structure** (OED) 2. The mutual relation of the constituent parts or elements of a whole as determining its peculiar nature or character.
The Didactic Uselessness of Definitions

Weakness of genus-differential definitions

Disappointment: the state or emotion of being disappointed

Disappointed MW: defeated in expectation or hope
The Didactic Uselessness of Definitions

Weakness of genus-differential definitions

disappointment MW: defeated in expectation or hope
Disappointment is when you expect something to happen
The Didactic Uselessness of Definitions

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disappointment MW: defeated in expectation or hope
Disappointment is when you expect something to happen
And you want it to happen
The Didactic Uselessness of Definitions

Weakness of genus-differential definitions

disappointment MW: defeated in expectation or hope
Disappointment is when you expect something to happen
And you want it to happen
And when the time comes for it to happen
The Didactic Uselessness of Definitions

Weakness of genus-differential definitions

disappointment  MW: defeated in expectation or hope
Disappointment  is when you expect something to happen
And you want it to happen
And when the time comes for it to happen
It doesn’t happen
The Didactic Uselessness of Definitions

Weakness of genus-differential definitions

Disappointed

Disappointed \textit{MW}: defeated in expectation or hope

\textbf{Disappointment} is when you expect something to happen
And you want it to happen
And when the time comes for it to happen
It doesn’t happen
And you feel bad
Responses to Deficiencies

— "We need more public instruction in 'dictionary skills'"
"A nation of readers" -- the Book Written by Books

"[Johnson's] Dictionary was a typical achievement of print, a language book made out of still other books that would determine the language of books still to be written.” — Alvin Kernan

How can an autonomous and anonymous public discourse regulate and reproduce itself?

Need to interpret language in absence of knowledge of context, speaker, etc.

Need for a methodology to determine, regulate, and stabilize meanings.

Need for a test to tell which words are "in" the language -- acceptable to use. (which discourses need to be attended to)
The Methodology of Lexicography

Method for isolation & circumscription of relevant precedents (identification of “the language” in terms of public discourse)

Method for isolating and abstracting contributions of individual words to interpretation (independent of both syntagmatic and extralinguistic contexts)

Method of reducing use of word to a "mechanical" rule that determines correct application of word.

Note that application of lexicographical argument isn't limited to use of Dictionary… method is most important for cases where Dict's actual authority is limited -- cf discussions of obscene, terrorism, torture, etc.
The Use of the Dictionary

St. Petersburg Times, March 3, 2003 Monday, CITRUS TIMES; Pg. 2, 1344 words, Board’s sudden opposition to toll road reveals favoritism

Pittsburgh Post-Gazette, February 9, 2003 Sunday, TWO STAR EDITION, Pg.B-7, 800 words, TOP OF THE CHARTS; TWENTY-FOUR YEARS OF CONSISTENT ADVICE FOR WRITERS
A monument, like a folio dictionary, is immovable and huge, inviolable and absolute in its expression of authority and its solidification of public memory; it exercises its authority as it represents it." (A. Reddick)

There is in [Johnson's Dictionary] a kind of architectural nobleness; it stands there like a great solid square-built edifice; you judge that a true builder did it." (Thos. Carlyle)
The D. as an "Inscription in Space": "Is X a word?"

(Note also the importance of visible compression…)

Hold the English language in your two hands…
Let any man of correct taste cast his eye on such words as denominable, opionatry, ariolation, assation, clancular, and comminuible, and let him say whether a dictionary which gives thousands of such items, as authorized English words, is a safe standard of writing. Noah Webster on Johnson's Dictionary

Words have been admitted in the language that are not only disreputable in origin, not only offensive in all their associations, not only vulgar in essence, but unfit at all points for survival. The New York Herald (1890) on Funk & Wagnall's inclusion of chesty "bold"

"…that most monstrous of non-words." Life Magazine on Webster's Third International's inclusion of irregardless
Aside: Collections and the Circumscription of Knowledge: Early Versions...

Library of the Escorial, 1543

E-L. Boulée, plan for the Bibliothèque du Roi, 1785

Labrouste, Bibliothèque : Geneviève, 1851
Circumscription of the Collection: The Classical Form

Smirke, British Museum Reading Room, 1851

Labrouste, Bibliothèque Nationale 1868

Pelz/Casey Reading Room, LOC, ca 1898

Asplund, Stockholm City Library, 1928
Circumscription of Knowledge: Brutalist Interpretations

D. Perrault, Bibliothèque Nationale de France, 1994
The Americanization of the Dictionary

You have corrected the dangerous doctrines of European powers, correct now the languages you have imported… The american language will thus be as distinct as the government, free from all the follies of unphilosophical fashion, and resting upon truth as its only regulator. William Thornton, 1793.

From the changes in civil policy, manners, arts of life, and other circumstances attending the settlement of English colonies in America, most of the language of heraldry, hawking, hunting, and especially that of the old feudal and hierarchical establishments of England will become utterly extinct in this country; much of it already forms part of the neglected rubbish of antiquity. Noah Webster, 1806
Cf Webster’s Spelling reforms: *honor, theater, etc.*, but also *tung, iz*...

"A capital advantage of this [spelling] reform in these States would be, that it would make a difference between the English orthography and the American…. I am confident that such an event is an object of vast political consequence."
Development of the Dictionary

1857-1928: Preparation of the OED; historical record of the entire language...
We could scarcely have a lesson on the growth of our English tongue, we could scarcely follow upon one of its significant words, without having unawares a lesson in English history as well, without not merely falling upon some curious fact illustrative of our national life, but learning also how the great heart which is beating at the centre of that life, was being gradually shaped and moulded.


[The English language] is like the English constitution... and perhaps also the English Church, full of inconsistencies and anomalies, yet flourishing in defiance of theory. It is like the English nation, the most orderly in the world, but withal the most loyal, orderly, and free.
The Social Setting of the Dict.

Characteristic function, role: ("reference book" from 1859; *œuvre de référence* from 1879)

Published under imprimatur of publishing house, compiled by committees, etc.

Cf “She works for a dictionary.” (newspaper, travel guide, *cookbook, *novel)

Surrounded/supported by specific institutions, tropes, etc.

Supported by classroom instruction, surrounded by official pieties:

[The dictionary] is the national key to human knowledge…. It behooves all those who are concerned in the education of the young to place this book on the same plane as the churchmen of old placed the English Bible. The dictionary should be placed on a lectern in every school throughout the land. Frank Vizetelly, 1915

In America, best predictor of D. ownership is presence of children… of any age.
The Dictionary Online: Where does it End?

Primary & secondary representations…
Shadow of the Colossus is a refreshingly simplistic adventure game that is well worth your time.

His style is refreshingly simplistic and philosophical.
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His style is refreshingly simplistic and philosophical.
The heterogeneous dictionary

Dictionaries can offer multiple modes of representation

**tango** (MW 10): a ballroom dance of Latin-American origin in 2/4 time with a basic pattern of step-step-step-step-close and characterized by long pauses and stylized body positions
Dictionaries can offer multiple modes of representation

**tango** (MW 10): a ballroom dance of Latin-American origin in 2/4 time with a basic pattern of step-step-step-step-close and characterized by long pauses and stylized body positions
Representing derivational and polysemic complexity

**punch 1, vb.**
1a: PROD, POKE
1b: DRIVE, HERD <punching cattle>
2a: to strike with a forward thrust esp. of the fist
2b: to drive or push forcibly by or as if by a punch
2c: to hit (a ball) with less than a full swing
3: to emboss, cut, perforate, or make with or as if with a punch
4a: to push down so as to produce a desired result <punch buttons on a jukebox>
4b: to hit or press down the operating mechanism of <punch a time clock> <punch a typewriter>
4c: to produce by or as if by punching keys <punch out a tune on the piano> <a teletypewriter punching out the news>
4d: to enter (as data) by punching keys
5: to give emphasis to
~ vi:
to perform the action of punching something

**punch 2n**
1: the action of punching
2: a quick blow with or as if with the fist
3: effective energy or forcefulness <a story that packs a punch> <political punch>

**punch 3n**
1a: a tool usu. in the form of a short rod of steel that is variously shaped at one end for different operations (as forming, perforating, embossing, or cutting)
1b: a short tapering steel rod for driving the heads of nails below a surface
1c: a steel die faced with a letter in relief that is forced into a softer metal to form an intaglio matrix from which foundry type is cast
1d: a device or machine for cutting holes or notches (as in paper or cardboard)
2: a hole or notch from a perforating operation
Alternatives: FrameNet


[back to the main table]

2. 1048785: [Agent] He riskedTgt [Action] a quick look at her furious face . [Top]
3. 1048790: The street ahead was clear so [Agent] I slowed and riskedTgt [Action] a look in the mirror . [Top]
4. 1048793: [Agent] He can't try anything, could n't riskTgt [Action] trying to get away] . " [Top]
5. 1048794: They were on the choppy, wavelike hills before Milford, a narrow road with too much Friday evening traffic heading south, against them, for [Agent] Maxim] to riskTgt [Action] trying to overtake an
Locolex, f-s technology for treatment of collocations in bilingual dictionaries:
  il va tenir le coup -- he’ll hold up
  gare routière -- bus station
Cf application to sense-tagging…

Through self-observation, the successfully analyzed patient picks up the inner signals of stress…
  5a: to catch sight of: PERCEIVE <pick up the harbor lights>
  5b: to come to and follow <picked up the outlaw's trail>
  5c: to bring within range of sight or hearing <pick up distant radio signals>
  5d: UNDERSTAND, CATCH <didn't pick up the hint>
Can There be "Dictionaries" for online language?

How do we circumscribe "the language" of online discourse?

Disappearance of the distinction between public and private. Where does "English" end?

Can the dictionary retain its symbolic function online?
Persistence of the Print Dictionary
Reasons for the Disparities

Demands for recency of information

Affordances of technology -- multimedia, hypertext, etc.

Cost considerations

Modularities of knowledge -- where does the encyclopedia end?
The Online Encyclopedia

Encyclopædia Britannica

Results 1-10 of 593.

- **baseball**
  pocket-billiards game, named for the similarity in its scoring system to the American game played with bat and ball, in which players attempt to score runs by pocketing 21 consecutively numbered ...

- **baseball**
  game played with a bat, a ball, and gloves between two teams of nine players each on a field with four white bases laid out in a diamond (i.e., a square oriented so that its diagonal line is ...

- **BASEBALL. Britannica Book of the Year 1994**
  Major league baseball added two expansion teams for the 1993 season, and an attendance record was broken for the seventh time in nine years. With the new Colorado Rockies and Florida Marlins creating ...

- **BASEBALL. Britannica Book of the Year 1996**

Britannica Student Encyclopedia

Results 1-10 of 381.

- **baseball**
  "Whoever wants to know the heart and mind of America had better learn **baseball**, the rules and realities of the game," wrote American author and historian Jacques Barzun. **Baseball** has been called America's national pastime, and for more than 150 years people of all ages have enjoyed playing or ...

- **All-American Girls Professional Baseball League**
  women's competitive teams formed by Chicago Cubs owner Philip K. Wrigley in 1943 when manpower shortages of World War II threatened to stop play and close down major league parks; debuted with 4 teams, ended with 10; skillful athletes often coached by former major-leaguers; players required to ...

The Web's Best Sites

Results 1-5 of 1452.

- **Baseball Immortals**
  "Comprehensive data on baseball players. Contains statistics and career highlights, as well as daily team-by-team reports."

- **Siami Baseball**

- **The Science of Baseball**
  The Exploratorium Innovative and upbeat site using interactive exhibits that teach the basics of baseball. Includes a section to test users' fastball reaction time, a scientific slugger exhibit that explains the variables required for every type of ...

Additional Content

Expand your search on baseball with these databases:

- **Journals and magazines**
- **Britannica Concise Encyclopedia**
- **Britannica Elementary Encyclopedia**

Video & Media

Results 1-5 of 9.

**Baseball Greats: Ty Cobb (1:57)**

Between the years of 1905 to 1929, Ty Cobb set or broke more baseball records than any player in history.

**Baseball Greats: Babe Ruth (2:01)**
Dictionary vs Encyclopedia

The need for consistency of form

Self-recognition of expertise
  Making unconscious knowledge explicit
  Systematic coverage of data

Circumscribing the domain of representation: which items belong in dictionary?
**Wikiing the Dictionary**

**Novel**: 1. a type of book (fiction), longer than a short story.

**AHD**: 1. A fictional prose narrative of considerable length, typically having a plot that is unfolded by the actions, speech, and thoughts of the characters. 2. The literary genre represented by novels.
biography, plural biographies

1. life story

AHD 1. An account of a person's life written, composed, or produced by another: a film biography of Adlai Stevenson; an oral biography. 2. Biographies considered as a group, especially when regarded as a genre. 3. The writing, composition, or production of biographies: a career entirely devoted to biography.
essay (plural: essays)
1. An attempt.
2. A one (or several) page report on a longer story.

1. (s)a. A short literary composition on a single subject, usually presenting the personal view of the author. b. Something resembling such a composition: a photojournalistic essay. 2. A testing or trial of the value or nature of a thing: an essay of the students' capabilities. 3. An initial attempt or endeavor, especially a tentative attempt.
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Supported by classroom instruction, surrounded by official pieties:

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In America, best predictor of D. ownership is presence of children… of any age.