



UC Berkeley School of Information

The Organization of Knowledge

Concepts of Information i218

Geoff Nunberg

Feb. 17, 2009



Itinerary: 2/19

"Knowledge" and "Information"

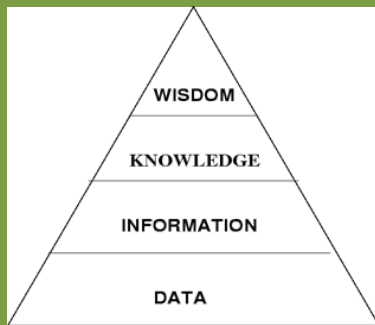
The shifting frame of knowledge

The modern organization of knowledge: complementary causes

The rise of the dictionary

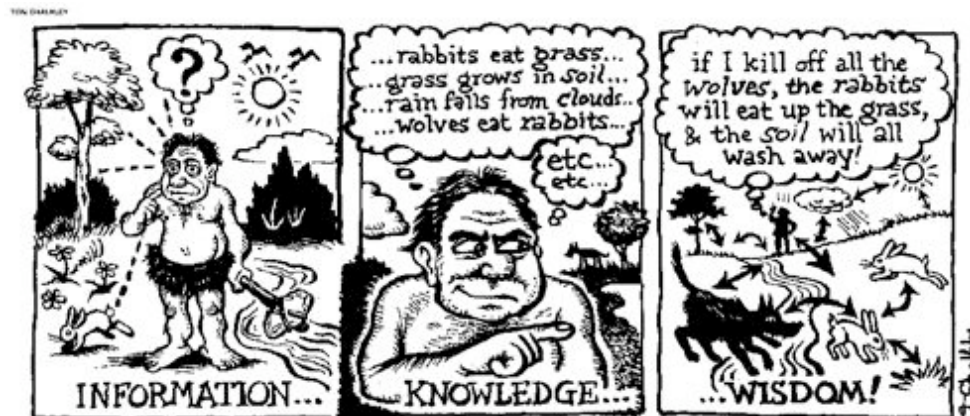


I. "knowledge" and "information"



The familiar hierarchy:

Data are facts and statistics that can be quantified, measured, counted, and stored. Information is data that has been categorized, counted, and thus given meaning, relevance, or purpose. Knowledge is information that has been given meaning and taken to a higher level. Knowledge emerges from analysis, reflection upon, and synthesis of information. (Whoever...)





"knowledge" and "information"

Where is the Life we have lost in living?

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in
information?

Eliot, "The Rock"



"knowledge" and "information"

Cf "human knowledge" vs. ?"human information"

OED: **knowledge**, 13: The sum of **what is known**. "All knowledge may be commodiously distributed into science and erudition." (De Quincey, 1823)

Knowledge as a collective property: "The third-century Chinese had knowledge of porcelain"

Medical knowledge vs medical information: what is the difference?



Quantifiable Knowledge

Today it is recognized that medical knowledge doubles every 6–8 years, with new medical procedures emerging everyday...

"Medical knowledge doubles every seven years.

...medical knowledge doubles itself every 17 years.

Medical knowledge doubles every two years, and with that kind of growth it is nice to know that Children's Hospital of Michigan offers plenty of research...

Medical Knowledge doubles every 19 years (22 months for AIDS literature) – Physician needs 2 million facts to practice



Is there any difference between Information and Knowledge?

...Thus the volume of new medical information doubles every 10 to 15 years and increases tenfold in 23 to 50 years.

Medical information doubles every 19 years. ... •

Scientific information doubles every five years. •

Biological information, doubles every five years. .

Medical Information Doubles every Four Years.

Medical information doubles every three years!

There are about 20000 - 30000 journals published in the discipline and the amount of medical information doubles every fifth year.



II. The Frames of Knowledge

Shifting conceptions and forms of knowledge: 1500-1750

Varieties of knowledge (Burke): 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

Trivium: grammar, logic, rhetoric

Quadrivium: arithmetic, astronomy, geometry, music

The three philosophies: ethics, metaphysics, "natural philosophy"

Higher faculties: theology, medicine, law

:





Material Representations of Knowledge

Knowledge and the role 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



Material Representations of Knowledge

Curriculum mirrored in form of library
(bibliographies)





Knowledge and the "Virtuosi"



"[T]he reverence for antiquity, and the authority of men who have been esteemed great in philosophy ... have retarded men from advancing in science..." (Francis Bacon, *Novum Organum*, 1620)



"He Trafficks to all places, and has his Correspondents in every part of the World; yet his Merchandizes serve not to promote our Luxury, nor encrease our Trade, and neither enrich the Nation, nor himself. A Box or two of Pebbles or Shells, and a dozen of Wasps, Spiders and Caterpillers are his Cargoe. He values a Camelion, or Salamander's Egg, above all the Sugars and Spices of the West and East-Indies... He visits Mines, Cole-pits, and Quarries frequently, but not for that sordid end that other Men usually do, viz, gain; but for the sake of the fossile Shells and Teeth that are sometimes found there." (Mary Astell, *Character of a Virtuoso*, 1696)



Material Representations of Knowledge

Organization of knowledge mirrored in form of Kunstkammer, cabinets of curiosities, etc.





Natural History Cabinet, Naples, 1599



Material Representations of Knowledge



Studiolo of Francesco I
Florence (1570)



Kunstkammer, 1636



Material Representations of Knowledge

The Kunstschränk





Material Representations of Knowledge



Presentation of the Pomeranian Kunstschränk to Duke Philip II of Pomerania-Stettin



Material Representations of Knowledge

The third form of similitude is analogy. An old concept already familiar to Greek science and medieval thought, but one whose use has probably become different now. In this analogy, convenientia and aemulatio are superimposed. Like the latter, it makes possible the marvellous confrontation of resemblances across space; but it also speaks, like the former, of adjacencies, of bonds and joints. Its power is immense, for the similitudes of which it treats are not the visible, substantial ones between things themselves; they need only be the more subtle resemblances of relations.

Foucault, *The Order of Things*



The Classificatory Urge: Thematic Organization

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

فقالوا: "بايع" فقال: "إن أنا لم أفعل فمه؟"
فقالوا: "أذا و الله الذي لا اله الا هو، نضرب عنقك!"
فقال: "أذا تقتلون عبد الله و احبا رسوله!"
فقال عمر: "أما عبد الله، فنعيم. أما اخو رسوله، فلا!"
وابو بكر ساكت لا يتكلم. فقال له عمر: "أ لا تأمر فيه بامرک؟"
فقال: "لا اكرهه على شيء ما كانت فاطمة الى جنبه."



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

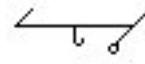
Speculum doctrinale: Grammar, logic, ethics,
medicine, crafts...


Speculum historiale: History of the world...



Wilkins' universal language

Explaining the symbol



The generic character  doth signify the genus of space. the acute angle on the left side doth denote the first difference, which is Time. The other affix signifies the ninth species under the differences, which is Everness. The Loop at the end of this affix denotes the word is to be used adverbially; so that the sense of it must be the same which we express by the phrase, For Ever and Ever.

John Wilkins "'An Essay Towards a Real Character and a Philosophical Language' 1668

de, an element

deb, the first of the elements, fire

deba, a part of the element fire, a flame

"children would be able to learn this language without knowing it be artificial; afterwards, at school, they would discover it being an universal code and a secret encyclopaedia." Borges



Wilkins' universal language

... a certain Chinese encyclopaedia entitled 'Celestial Empire of benevolent Knowledge'. In its remote pages it is written that the animals are divided into: (a) belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.

there is no classification of the Universe not being arbitrary and full of conjectures

Jorge Luis Borges



Changing Frames of Knowledge

Within 200 years, something like the mod, system emerges.

Responses to influences that are:

Pragmatic/material

Philosophical/academic

Symbolic/political

(Not entirely independent...)



Pragmatic Forces: Perceptions of Overload



We have reason to fear that the multitude of books which grows every day in a prodigious fashion will make the following centuries fall into a state as barbarous as that of the centuries that followed the fall of the Roman Empire. Unless we try to prevent this danger by separating those books which we must throw out or leave in oblivion from those which one should save and within the latter between what is useful and what is not. Adrien Baillet, 1685



“That horrible mass of books which keeps on growing, [until] the disorder will become nearly insurmountable.”
Leibniz, 1680



The Reorganization of Libraries

Antonfrancesco Doni, 1550: there are “so many books that we do not have time to read even the titles.”

Gabriel Naudé, scheme to “find books without labor, without trouble, and without confusion.”



Strategies for dealing with information overload

Compendia and reference books (*Répertoires* or *Trésors*). Growth of alphabetical organization (presumes reading in parts.)

"I esteem these Collections extremely profitable and necessary, considering, the brevity of our life, and the multitude of things which we are now obliged to know, e're one can be reckoned amongst the number of learned men, do not permit us to do all of ourselves." Gabriel Naudé, 1661 [librarian to Mazarin]

The *Cyclopaedia* will "answer all the Purposes of a Library, except Parade and Incumbrance." Ephraim Chambers, 1728



New Schemes of Organization: Philosophical Influences



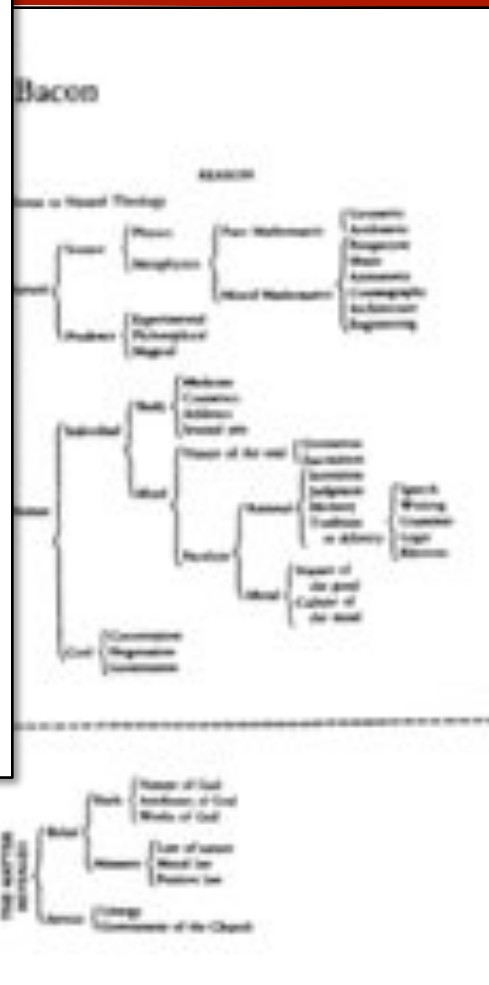
Francis Bacon's scheme puts man at the center:

Nature (astronomy, meteorology, etc.).

Man (anatomy, powers, actions),

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

The Tree of Bacon



**THE INSTITUTE OF
MAGISTRATES**

- Law
 - Magistrate of justice
 - Magistrate of the Church
 - Law of nature
- Influence
 - Traditional justice
 - Religious justice
 - Magistrate's jurisdiction
 - Magistrate's jurisdiction
- Application
 - of justice
 - Interpretation of Scripture, etc.

**THE ARTS
OF MIND**

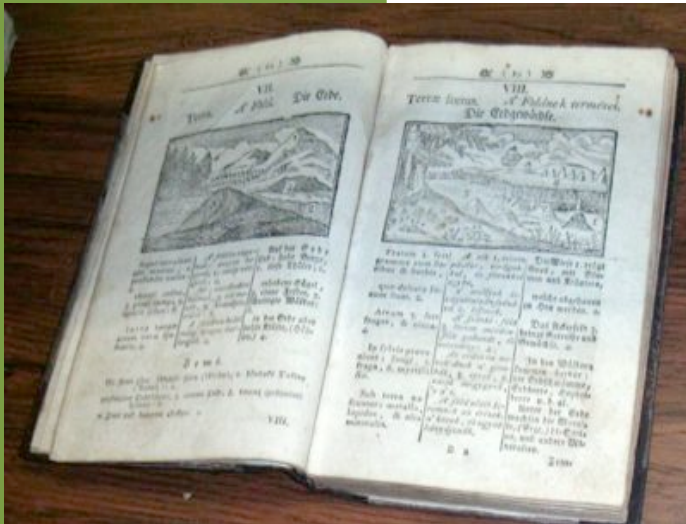
- Book
 - History of the World
 - History of the Church
 - History of the Mind
- Art
 - Law of nature
 - Magistrate's jurisdiction
 - Magistrate's jurisdiction
- Art
 - Magistrate's jurisdiction
 - Magistrate's jurisdiction



New Schemes of Organization: Didactic Objectives

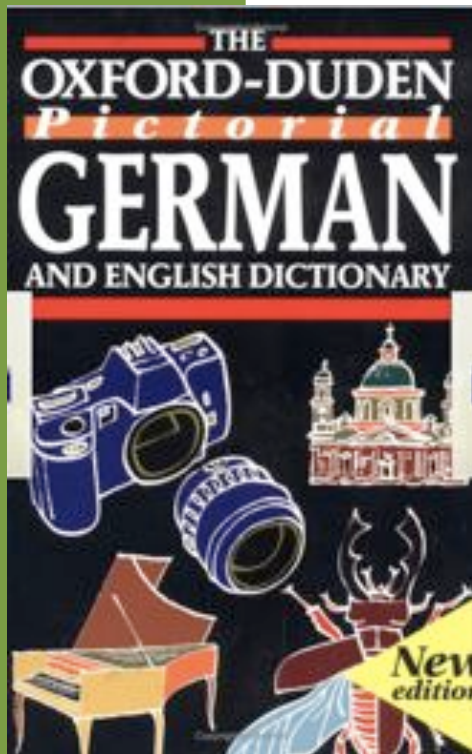
Comenius (Amos Komensky), *Orbis sensualium pictus*, 1658

1. Elements, firmament, fire, meteors
2. Waters, earths, stones, metals,
3. Trees, fruits, herbs, shrubs
4. Animals
5. Man and his body...
20. Providence, God and the angels,,,





Comenius's Descendants





Comenius's Descendants

Peter Marc Roget: 1779-1869



P. M. Roget.

THESAURUS
OF
ENGLISH WORDS AND PHRASES,
CLASSIFIED AND ARRANGED
IN A
TO FACILITATE THE EXPRESSION OF IDEAS
AND USED IN
LITERARY COMPOSITION.

BY
PETER MARK ROGET, M.D., F.R.S.
PHYSICIAN OF THE ROYAL COLLEGE OF PHYSICIANS,
MEMBER OF THE SENATE OF THE UNIVERSITY OF CAMBRIDGE,
OF THE ACADEMY AND HONORARIAL DOCTOR OF BOURNONGNE, STRASBURG,
BRUNN, GRENZ, VINDOBONA, BUDAPEST, VIENNA, AND BUDAPEST.
AUTHOR OF
THE "SYNONYMICAL THESAURUS OF ENGLISH AND FRENCH PHRASES,"
&c.

"It is impossible we should thoroughly understand the nature of the world, unless we
first properly consider and arrange the various notions." — "The Republic."

FOURTH EDITION, ENLARGED AND IMPROVED.



Comenius's Descendants

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OF THE PHYSICIAN AND ANATOMICAL SOCIETY OF CAMBRIDGE, LONDON,
EDINBURGH, NEW YORK, BOSTON, PHILADELPHIA, AND SYDNEY.

Author of
THE "SYNOPSIS TABLE OF MORALS AND POLITICAL ECONOMY,"
1811.

"It is impossible we should thoroughly understand the nature of the world, unless we
first properly consider and arrange the various notions." — "Class. Dictionary."

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PLAN OF CLASSIFICATION.

| | Sect. | No. |
|---------------------------------|---------------------------|----------|
| Class. I. ABSTRACT RELATIONS | 1. EXISTENCE | 1 to 8 |
| | 2. RELATION | 9—24 |
| | 3. QUANTITY | 25—57 |
| | 4. ORDER | 58—83 |
| | 5. NUMBER | 84—105 |
| | 6. TIME | 106—139 |
| | 7. CHANGE | 140—152 |
| | 8. CAUSATION | 153—179 |
| II. SPACE | 1. GENERALLY | 180—191 |
| | 2. DIMENSIONS | 192—239 |
| | 3. FORM | 240—263 |
| | 4. MOTION | 264—315 |
| III. MATTER | 1. GENERALLY | 316—320 |
| | 2. INORGANIC | 321—356 |
| | 3. ORGANIC | 357—449 |
| IV. INTELLECT | 1. FORMATION OF IDEAS | 450—515 |
| | 2. COMMUNICATION OF IDEAS | 516—599 |
| V. VOLITION | 1. INDIVIDUAL | 600—736 |
| | 2. INTERSOCIAL | 737—819 |
| VI. AFFECTIONS | 1. GENERALLY | 820—826 |
| | 2. PERSONAL | 827—887 |
| | 3. SYMPATHETIC | 888—921 |
| | 4. MORAL | 922—975 |
| | 5. RELIGIOUS | 976—1000 |



The Emergence of Alphabetical Order

Alphabetical order already in use

Catholic index of prohibited books; Erasmus's proverbs, etc.

Practical advantages:

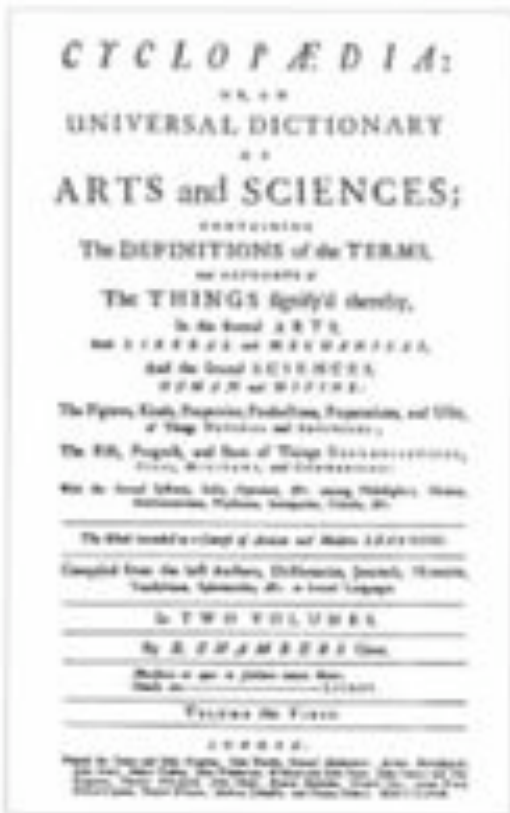
Facilitates access to particular entries (assuming a certain mode of reading)

Philosophically modest

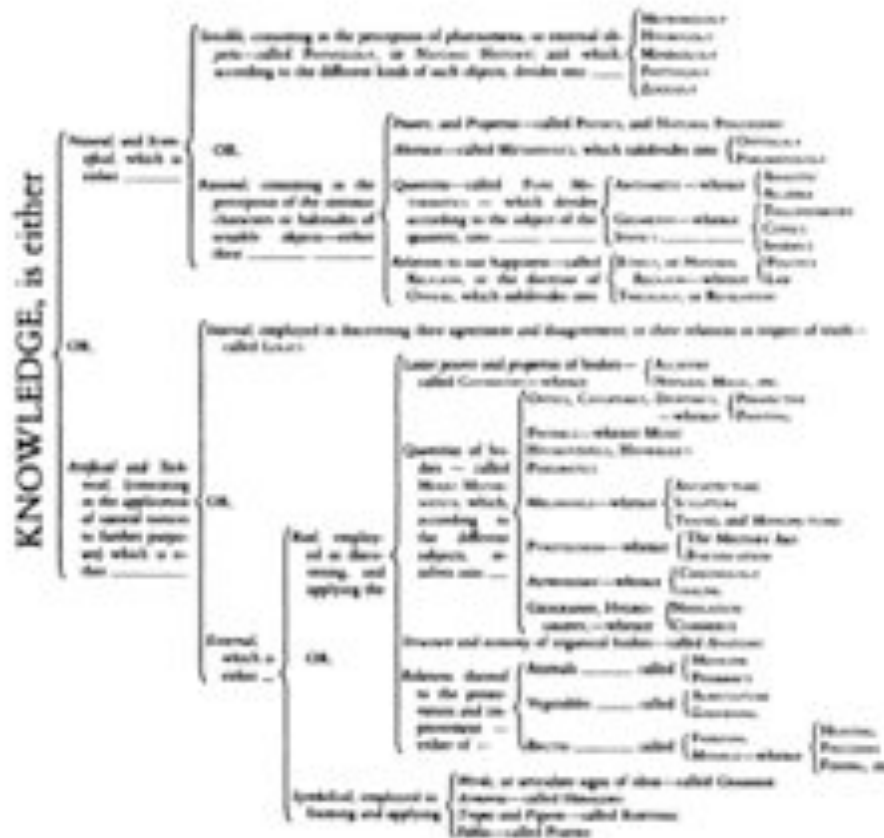
"It might be more for the general interest of learning, to have the partitions thrown down, and the whole laid in common again, under one undistinguished name." Ephraim Chambers



Chamber's Cyclopædia,



The Tree of Chambers



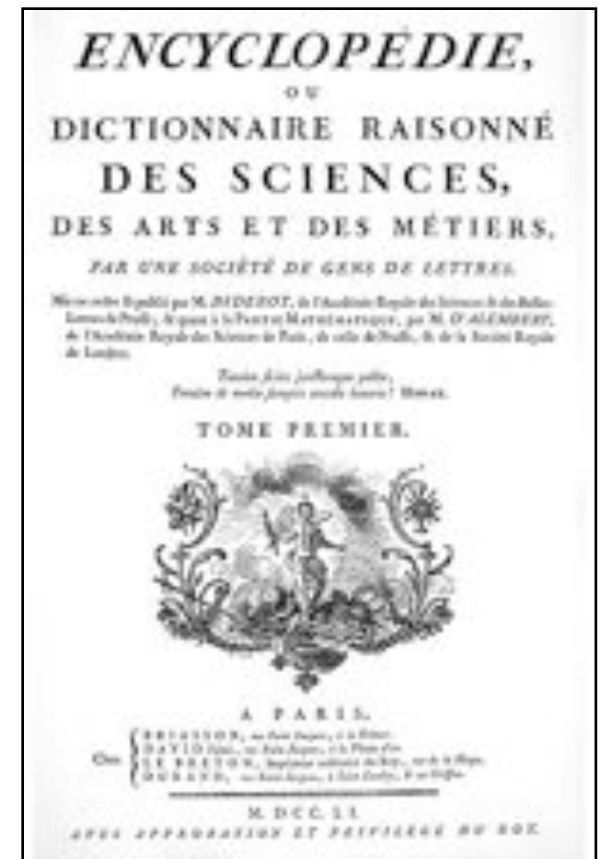


The Encyclopédie



Denis Diderot

First vol. appears in 1751; last in 1772





Mixing Theme and Alphabet



Jean d'Alembert

[T]he encyclopedic arrangement of our knowledge ... consists of collecting knowledge into the smallest area possible and of placing the philosopher at a vantage point, so to speak, high above this vast labyrinth, whence he can perceive the principle sciences and the arts simultaneously. From there he can see at a glance the objects of their speculations and the operations which can be made on these objects; he can discern the general branches of human knowledge, the points that separate or unite them; and sometimes he can even glimpse the secrets that relate them to one another. It is a kind of world map which is to show the principle countries, their position and their mutual dependence, the road that leads directly from one to the other.



The Enlightenment Plan



Jean d'Alembert

"The tree of human knowledge could be formed in several ways, either by relating different knowledge to the diverse faculties of our mind or by relating it to the things that it has as its object. The difficulty was greatest where it involved the most arbitrariness. But how could there not be arbitrariness? Nature presents us only with particular things, infinite in number and without firmly established divisions. Everything shades off into everything else by imperceptible nuances"

The Tree of Diderot & D'Alembert

ESSAI D'UNE DISTRIBUTION GÉNÉALOGIQUE DES SCIENCES ET DES ARTS PRINCIPAUX.

Selon l'Explication détaillée du Système
des Connaissances Humaines dans le Discours
préliminaire des Editeurs de l'Encyclopédie
publiée par M. Diderot et M. d'Alembert,
À Paris en 1751

Reduit en cette forme pour
découvrir la connaissance
Humaine d'un coup d'oeil.

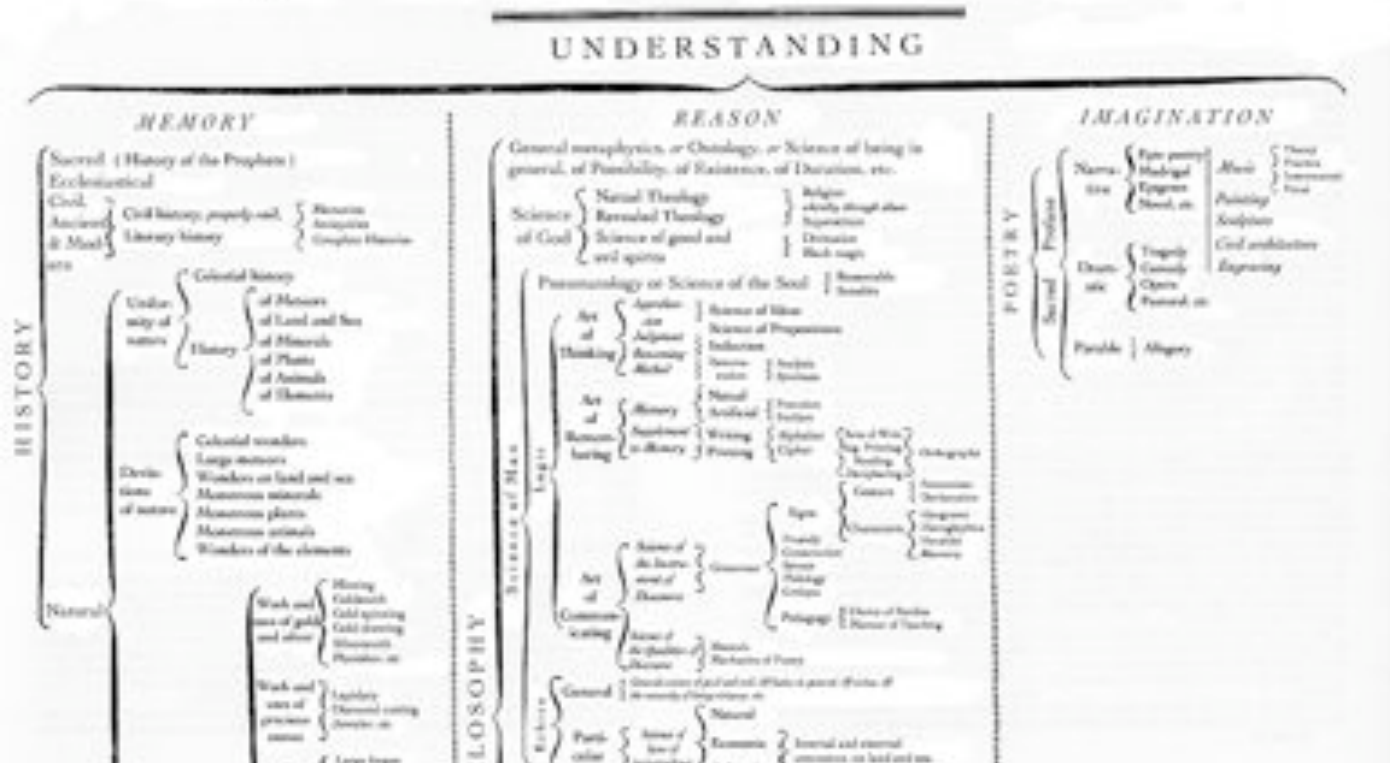
Par Chrétien Frederic Guillaume Roth,
À Weimar, 1769





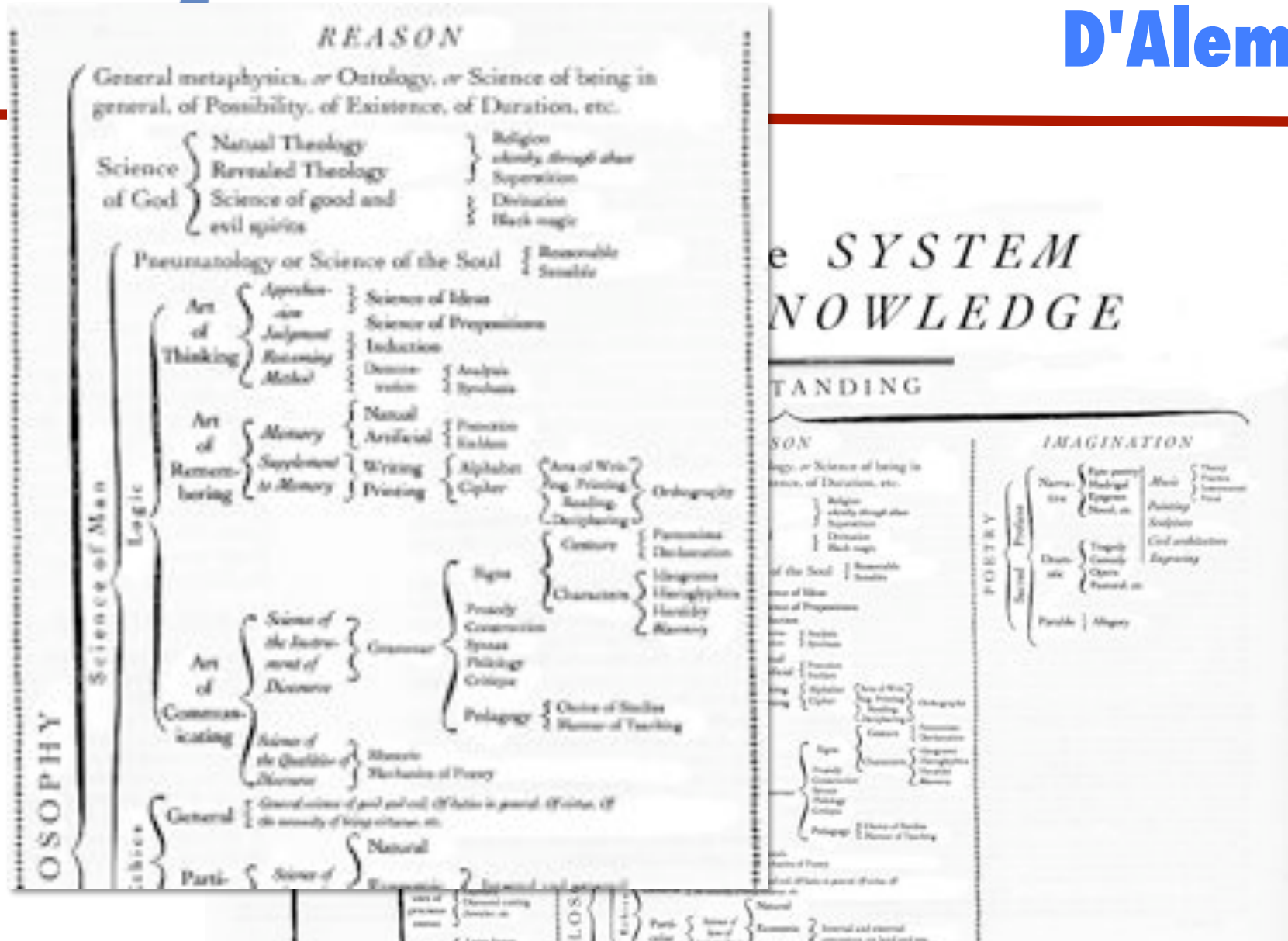
The Tree of Diderot & D'Alembert

MAP of the *SYSTEM* of *HUMAN KNOWLEDGE*





The Tree of Diderot & D'Alembert





Revisiting Thematic Organization



S.T. Coleridge, Encyclopedia Metropolitana, 1817-35.
Emphasized relations.

Method, therefore, becomes natural to the mind which has been accustomed to contemplate not things only, or for their own sake alone, but likewise and chiefly the relations of things, either their relations to each other, or to the observer, or to the state and apprehension of the hearers. To enumerate and analyze these relations, with the conditions under which alone they are discoverable, is to teach the science of method..



Revisiting Thematic Organization



S.T. Coleridge, *Encyclopedia Metropolitana*, 1817-35. Four Sections:

I. Pure Sciences, 2 vols., 1,813 pages, 16 plates, 28 treatises, includes grammar, law and theology;

II. Mixed and Applied Sciences, 6 vols., 5,391 pages, 437 plates, 42 treatises, including fine arts, useful arts, natural history and its application, the medical sciences;

III. History and Biography, 5 vols., 4,458 pages, 7 maps, containing biography (135 essays) chronologically arranged, interspersed with (210) chapters on history (to 1815), as the most philosophical, interesting and natural form.

IV. Miscellaneous and lexicographical, 13 vols., 10,338 pages, 105 plates, including geography, a dictionary of English and descriptive natural history.



Revisiting Thematic Organization

1974: 15th edition of the Encyclopedia Britannica divided the Micropædia (short articles) the Macropædia (major articles) and the Propædia (Outline of Knowledge).



III. The Emergence of the Modern Dictionary



The Emergence of the Vernacular

Concerns that the vernacular (i.e., ordinary spoken) language is not an adequate vehicle for philosophy, history, etc.

Besyde Latyne, our langage is imperfite,
Quhilk in sum part, is the cause and the wyte [fault],
Quhy that Virgillis vers, the ornate bewte
In till our toung, may not obseruit be
For that bene Latyne wordes, mony ane
That in our leid ganand [suitable language], translation has nane....
Gawin Douglas, 1553

For I to no other ende removed hym from his naturall and loftye
Style to our own corrput and base, or as al men affyrme it: most
barbarous Language: but onely to satisfye the instant requestes of a
few my familiar frendes.

Alex. Neville, preface to translation of Seneca, 1563

Shall English be so poore, and rudely-base
As not be able (through mere penury)
To tell what French hath said with gallant grace,
And most tongues else of less facunditie?

John Davies, 1618



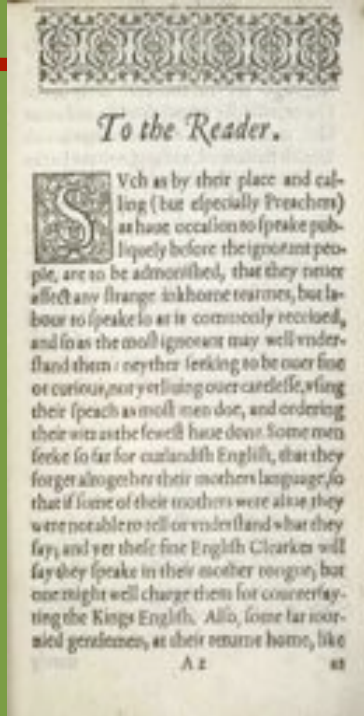
Refining the Vernacular

"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")

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 speche as most men doe, and ordering our wittes as the fewest have done. Thomas Wilson, *Arte of Rhetorique*, 1553



Refining & Codifying the Language



Advertisement to
Cawdrey's Table
Alphabeticall

Cawdrey, 1604:

Some men seek so far for outlandish English, that they forget altogether their mothers language, so that if some of their mothers were alive, they were not able to tell, or understand what they say, and yet these fine English Clearks, will say they speak in their mother tongue; but one might well charge them, for counterfeyting the Kings English. Also, some far journied gentlemen, at their returne home, like as they love to go in forraine apparrell, so they will poudere their talke with over-sea language.... Doth any wise man think, that wit resteth in strange words, or els standeth it not in wholesome matter, and apt declaring of a mans mind? Do we not speak, because we would have other to understand us? or is not the tongue given for this end, that one might know what another meaneth?



Early Wordbooks

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

A
 Table Alphabeticall, con-
 teyning and teaching the true
 vriting, and vnderstanding of hard
 vsuall English wordes, borrowed from
 the Hebrew, Greeke, Latine,
 or French. &c.

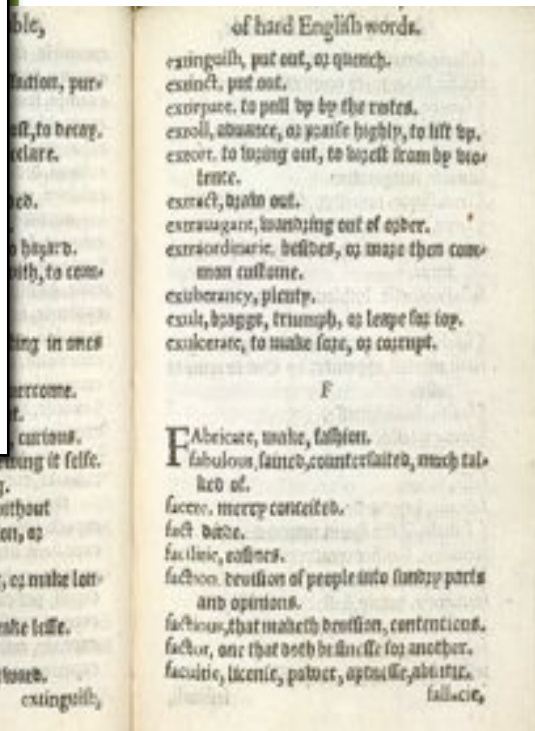
With the interpretation thereof by
 plaine English words, gathered for the benefit &
 helpe of Ladies, Gentlewomen, or any other
 unskillfull persons.

Whereby they may the more easilie
 and better vnderstand many hard English
 wordes, vvhich they shall heare or read in
 Scriptures, Sermons, or elsewhere, and also
 be made able to vie the same aptly
 themselues.

Legere, et non intelligere, negligere est.
 As good not read, as not to vnderstand.

AT LONDON,
 Printed by I. R. for Edmund Wea-
 ter, & are to be sold at his shop at the great
 North doore of Paules Church.
 1604.

Robert Cawdrey's Table Alphabeticall of 1604, the first English dictionary to explain the
 exotic to the 'unskillfull'.



First monolingual dictionaries appear in early c. 17. with Robert Cawdrey's *Table Alphabeticall of Hard Usual English Words*, 1604 ("for the benefit and helpe of Ladies, Gentlewomen, or other unskillful persons")



The desire for "illustration" in France

Would to God that some noble heart could employ himself in setting out rules for our French language.. If it is not given rules, we will find that every fifty years the French language will have been changed and perverted in very large measure. G. Tory, 1529

Formation of the Académie Française



L'habit vert et l'épée.

Modeled on the accademia della Crusca, Florence (1583), which published 1st dict. In 1612

Formed in 1635 by Cardinal Richelieu; 40 members ("les immortels")

1st ed. of dictionary appears in 1694 (6 or 7 others since then).

Small direct effect on the language.

Model for other language academies in Sweden, Spain, Romania, Portugal, Russia, etc. with varying degrees of influence





The achievement of "clarté"



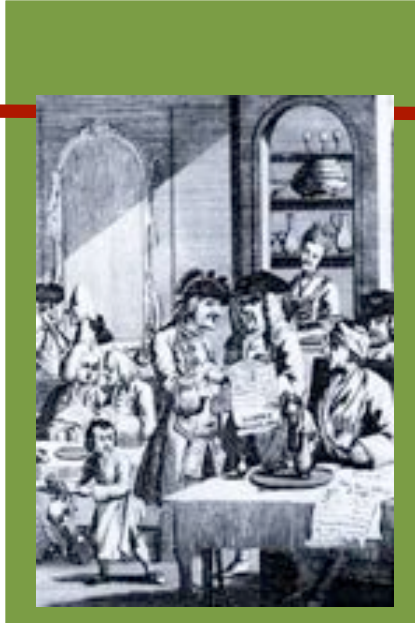
What distinguishes our language from the ancient and modern languages is the order and structure of the sentence. French names first of all the subject of the discourse, then the verb which is the action, and finally the object of the action: this is the natural logic for all human beings... This is what results in the admirable clarity which is the eternal basis of our language. What is not clear is not French; what is not clear is still English, Italian, Greek, or Latin.

Antoine de Rivarol, *De l'universalité de la langue française*, 1784.

The qualities of clarity, precision, and elegance gave the French language a position in Europe which no modern language had known since the middle Ages. W. von Wartburg, 1982

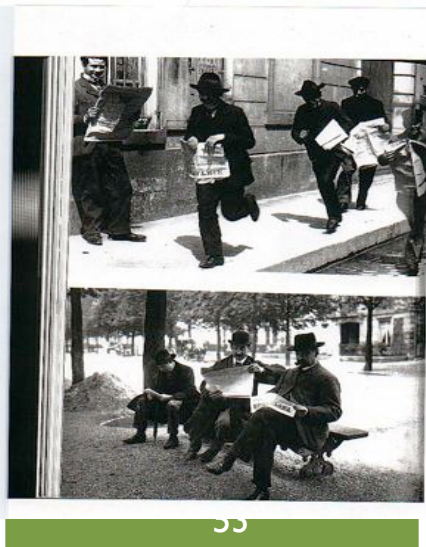


Print, the Public, and "Imagined Communities"



[Britain] has become a nation of readers. --Samuel Johnson, 1781

The newspaper reader, observing exact replicas of his own paper being consumed by his subway, barbershop, or residential neighbors, is continually reassured that the imagined world is visibly rooted in everyday life...creating that remarkable confidence of community in anonymity which is the hallmark of modern nations. -- Benedict Anderson, *Imagined Communities*.





Linguistic anxiety and the public sphere

How to coordinate public opinion via an impersonal print discourse between people who are anonymous to one another, in the absence of context...



The Growing Sense of Crisis



John 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.



William Warburton (1747): the English 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."



An academy for English?



1697 Daniel Defoe proposes establishing an academy to be "wholly composed of gentlemen, whereof twelve to be of the nobility, if possible, and twelve private gentlemen, and a class of twelve to be left open for mere merit....The voice of this society should be sufficient authority for the use of words."



Swift's "Proposal" 1712



Desire to "ascertain" (fix) the language:

A major concern among writers -- cf involvement of Addison, Swift, Pope, Johnson, etc.

1712: Swift writes "A Proposal for Correcting, Improving, and Ascertaining the English Tongue in a Letter to the Most Honourable Robert Harley, Earl of Oxford and Mortimer, Lord High Treasurer of Great Britain":

My Lord; I do here in the Name of all the Learned and Polite Persons of the Nation, complain to your Lordship, as First Minister, that our Language is extremely imperfect; that its daily Improvements are by no means in proportion to its daily Corruptions; and the Pretenders to polish and refine it, have chiefly multiplied Abuses and Absurdities; and, that in many Instances, it offends against every Part of Grammar. ...





Swift's "Proposal" 1712



if [the language] were once refined to a certain Standard, perhaps there might be Ways found out to fix it for ever; or at least till we are invaded and made a Conquest by some other State; and even then our best Writings might probably be preserved with Care, and grow into Esteem, and the Authors have a Chance of Immortality...

In order to reform our Language, I conceive, My Lord, that a free judicious Choice should be made of such Persons, as are generally allowed to be best qualified for such a Work, without any regard to Quality, Party, or Profession. These, to a certain Number at least, should assemble at some appointed Time and Place, and fix on Rules by which they design to proceed.



Reactions to Swift's Proposal

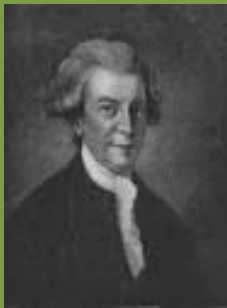
I should rejoice with him [Swift] if a way could be found out to *fix our language for ever*, that like the *Spanish* cloak, it might always be in fashion.

John Oldmixon, on Swift's Proposal...



The Growing Sense of Crisis

Continuing desire to fix the language:



"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 Alexander 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 partiarch 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 to make dict. for 1500 guineas

Johnson installs himself and his amensenses in Gough Square to begin work on the Dictionary

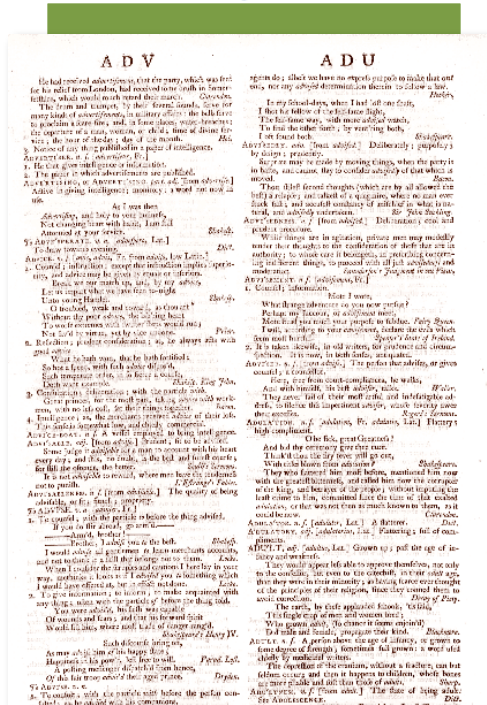
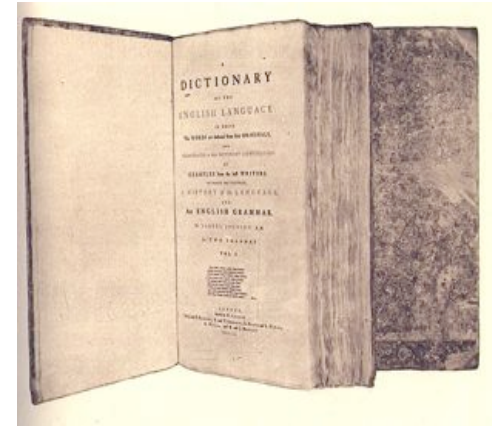
1747: The "Plan of an English Dictionary" appears





Johnson to the Rescue

1755 appearance of Johnson's Dictionary of the English Language.



He adulter's still: his thoughts lye with a whore. *B. Johns.*
ADULTERANT. *n. f.* [*adulterans*, Lat.] The person or thing which adulterates.
To ADULTERATE. *v. a.* [*adulterer*, Fr. *adultero*, Lat.]
 I. To commit adultery.
 But fortune, oh!
Adulterate: hourly with thine uncle John;
 And with her golden hand hath pluckt on France.
Shakesp. King John.
 2. To corrupt by some foreign admixture; to contaminate.
 Common pot-ashes, bought of them that sell it in shops, who are not so foolishly knavish, as to *adulterate* them with salt-petre, which is much dearer than pot-ashes. *Boyle.*
 Could a man be compos'd to such an advantage of constitution,
 L



The Success of the Dictionary



The Dictionary, with a Grammar and History of the English Language, being now at length published, in two volumes folio, the world contemplated with wonder so stupendous a work atchieved by one man, while other countries had thought such undertakings fit only for whole academies.

James Boswell, *Life of Johnson*



The Success of the Dictionary



Talk of war with a Briton, he'll boldly advance,
That one English soldier will beat ten of France,
Would we alter the boast from the sword to the pen,
Our odds are still greater, still greater our men . . .
First Shakspeare and Milton, like Gods in the fight,
Have put their whole drama and epick to flight;
In satires, epistles, and odes, would they cope,
Their numbers retreat before Dryden and Pope;
And Johnson, well-arm'd like a hero of yore,
Has beat forty French, and will beat forty more!"

David Garrick



The Success of the Dictionary

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

An accurate evaluation?

Johnson condemns words like *bully*, *coax*, and *job*.



The Rejection of an Academy

If an academy should be established for the cultivation of our stile, which I, who can never wish to see dependance multiplied, hope the spirit of English liberty will hinder or destroy...

Johnson, Preface to the *Dictionary*



As to a publick academy.. I think it not only unsuitable to the genius of a *free nation*, but in itself ill calculated to reform and fix a language. We need make no doubt but that the best forms of speech will, in time, establish themselves by their own superior excellence...

Joseph Priestly, *Rudiments of Grammar*, 1761

Contrast the role of the state in French....



Features of Johnson's Dictionary

Alphabetical listing of words -- the significance of alphabetic rather than thematic organization

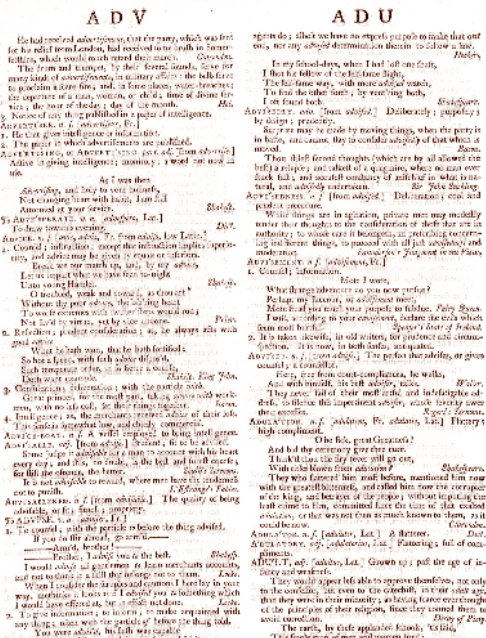


Features of Johnson's Dictionary

Alphabetical listing of words -- the significance of alphabetic rather than thematic organization



The Persistence of Form



He adulterates still: his thoughts lye with a whore. *B. Johns.*

ADULTERANT. *n. f.* [*adulterans*, Lat.] The person or thing which adulterates.

ADULTERATE. *v. a.* [*adulterer*, Fr. *adultero*, Lat.]

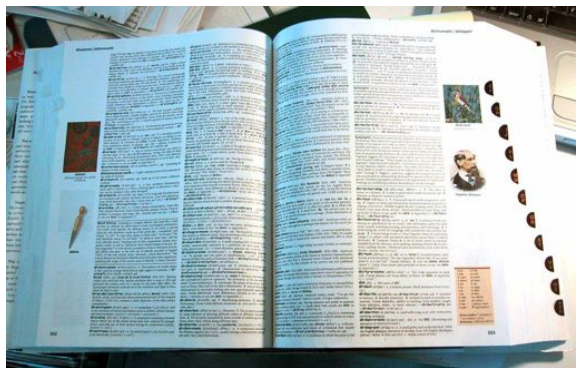
- To commit adultery.
- To corrupt by some foreign admixture; to contaminate.

Common pot-ashes, bought of them that sell it in shops, who are not so foolishly knavish, as to adulterate them with salt-petre, which is much dearer than pot-ashes.

Could a man be composed to such an advantage of constitution,

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."





Naturalizing the Dictionary

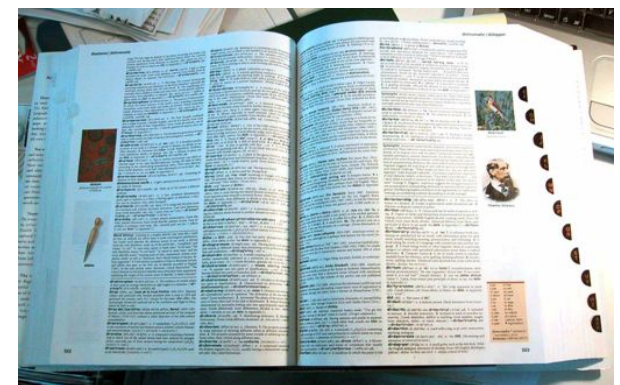
"The dictionary" like "the Periodic Table": Form answers to structure of represented domain + user needs...

C. Barnhart: "it is the function of a popular dictionary to answer the questions that the user of the dictionary asks."

The periodic table of the elements

| | 1A | 2A | 3A | 4A | 5A | 6A | 7A | 8 | 1B | 2B | 3B | 4B | 5B | 6B | 7B | 0 | | |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | H | | | | | | | | | | | | | | | He | | |
| 2 | Li | Be | | | | | | | | B | C | N | O | F | | Ne | | |
| 3 | Na | Mg | | | | | | | | Al | Si | P | S | Cl | | Ar | | |
| 4 | K | Ca | Sc | Ti | V | Cr | Mn | Fe | Co | Ni | Cu | Zn | Ga | Ge | As | Se | Br | Kr |
| 5 | Rb | Sr | Y | Zr | Nb | Mo | Tc | Ru | Rh | Pd | Ag | Cd | In | Sn | Sb | Te | I | Xe |
| 6 | Cs | Ba | L | Hf | Ta | W | Re | Os | Ir | Pt | Au | Hg | Tl | Pb | Bi | Po | At | Rn |
| 7 | Fr | Ra | A | | | | | | | | | | | | | | | |
| | L | La | Ce | Pr | Nd | Pm | Sm | Eu | Gd | Tb | Dy | Ho | Er | Tm | Yb | Lu | | |
| | A | Ac | Th | Pa | U | Np | Pu | Am | Cm | Bk | Cf | Es | Fm | Md | No | Lr | | |

Legend:
Metals (orange)
Metalloids (green)
Non-metals (cyan)
Transition Metals (yellow)
Gases (pink)





Features of Johnson's Dictionary

Meanings illustrated by citations from English writers:
"The book written by books"

He *adulterers* fill: his thoughts lye with a whore. *B. Johns.*
ADU'LTERANT. *n. s.* [*adulterans*, Lat.] The person or thing which adulterates.
To ADU'LTERATE. *v. a.* [*adulterer*, Fr. *adultero*, Lat.]
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Could a man be compos'd to such an advantage of constitution,
L
tion,



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-differentia definitions

disappointed MW: defeated in expectation or hope

disappointment is when you expect something to happen



The Didactic Uselessness of Definitions

Weakness of genus-differentia definitions

disappointed 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-differentia definitions

Disappointed 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-differentia definitions

disappointed 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-differentia definitions

Disappointed 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

And you feel bad



The Use of the Dictionary

The screenshot shows a Netscape browser window displaying the LexisNexis Academic search results for the term "according to webster's FOCUS". The search results are sorted by relevance, and the first two results are visible. The search terms and the number of documents found (1-25 of 599) are circled in the image.

LexisNexis™ Home Sources How Do I? Site Map What's New Help

Search Terms: according to webster's
FOCUS™ Search Within Results Edit Search

Jump to Documents 1-25 Print Email

Document List Expanded List KWIC Full Documents 1 - 25 of 599

Tag for delivery
Sort by: Relevance
Clear

1. [St. Petersburg Times](#), March 3, 2003 Monday, CITRUS TIMES; Pg. 2, 1344 words, Board's sudden opposition to toll road reveals favoritism
2. [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



Defining "The Language"

Why include 'all the words'? Why bother to define simple words?

Cf defs in Nathan Bailey's dict., 1721:

cat: "a creature well known"

black: "a colour"

strawberry: "a well known fruit"



Defining the Compass of the Language

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*

a



The Organization of Knowledge

Knowledge and the emergence 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 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 Spatialization of the Language



That vast aggregate of words and phrases which constitutes the Vocabulary of English-speaking men presents... the aspect of one of those nebulous masses familiar to the astronomer, in which a clear and unmistakable nucleus shades off on all sides, through zones of decreasing brightness, to a dim marginal film that seems to end nowhere, but to lose itself imperceptibly in the surrounding darkness....

James Murray, "General Explanation" to the OED



The "canonicity" of knowledge.

Canonicity: All elements of all subdomains are ordered with regard to "centrality" of membership (i.e., discursive space is metrical, not just topological)

What defines a "reference book"

words: *civet* > *panther* > *cat*

authors: Michael Crichton > John Updike > Herman Melville

news events: rescued cat > school budget vote > earthquake

Also: tourist attractions (travel guides), artists (national collections), etc.

Buf cf. world records: ??Most hot dogs eaten > largest waistline > longest kiss



Canonicity, cont.

Canonicity permits "essentialist" abridgement:

"[M]en of good will have extracted the substance of a thousand volumes and passed it in its entirety into a single small duodecimo, a bit like skillful chemists who press out the essence of flowers to concentrate it in a phial while throwing the dregs away." L-S.Mercier, *L'An 2440*, 1771

Cf sense of "library" and "bibliothèque" to denote comprehensive publication series & catalogues

"If the lexicon of a language is indeed something like that of a circle, then... if one moves away from the center in concentric circles, the result should be a faithful image of the total lexicon." Henri Béjoint, *Tradition and Innovation in English Dictionaries*, 1992

i.e., In theory, every large dictionary contains every small dictionary



Spatialization and the Forms of Print Discourse

Spatialization of discourse rests on the modes of print circulation

Topology presumes the distinction between public and private

Metricality presumes a correlation between spatiotemporal accessibility/diffusion & reputation...

Cf George Campbell, 1776: "The authors of reputation [provide us with a] certain, steady, and well-known standard to recur to, a standard which every one hath access to canvass and examine."

...and between reputation and quality:

Cf Hume, Campbell: "reputation and merit go generally together."

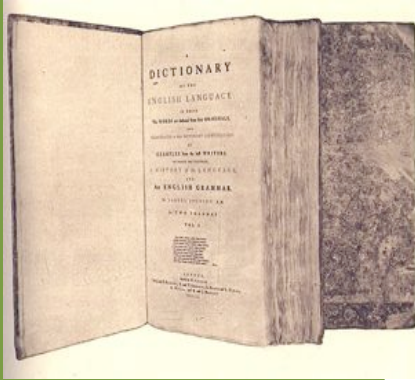
Cf also citation indexes...



Symbolism of the dictionary's form

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 Dict. as an "Inscription in Space": "Is X a word?"



(Note also the importance of visible compression...)



The Form of Collections, 1



Library of the
Escorial, 1543



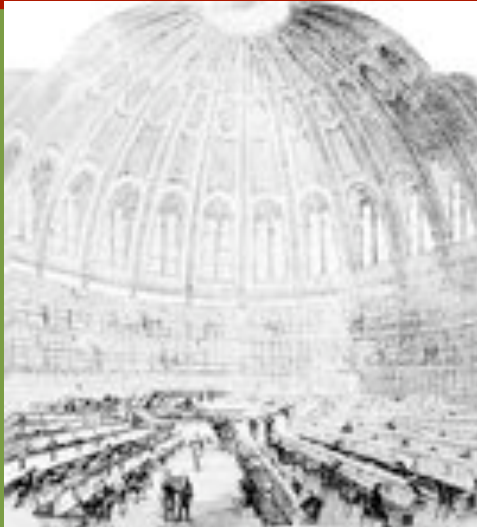
E-L. Boulée, plan for the
Bibliothèque du Roi,
1785



Labrouste, Bibliothèque
Ste. Geneviève, 1851

The Form of Collections, 2: The classical version

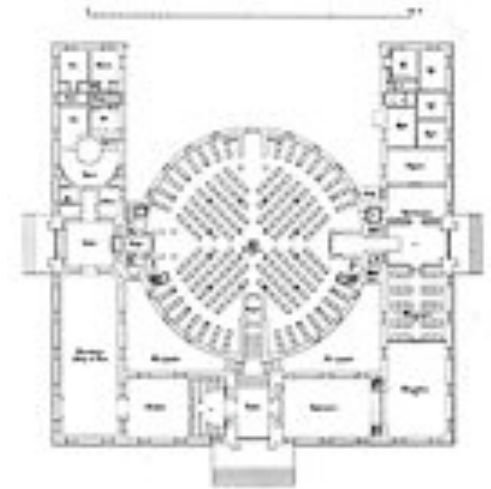
Smirke, British Museum Reading Room, 1851



Pelz/Casey Reading Room, LOC, ca 1898



Labrouste, Bibliothèque Nationale 1868



Asplund, Stockholm City Library, 1928



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





The Americanization of the Dictionary

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...



SHARON TAYLOR GIBSON

Abbreviate (ăbrĭvĭĕt), *v.*, also 5-7 **abbreviate**. [f. ABBREVIATE *ppl. a.*; or on the analogy of *vbs.* so formed; see -ATE. A direct representative of L. *abbreviāre*; as ABRIDGE, and the obs. ABREVI, represent it indirectly, through OFr. *abregier* and mid. Fr. *abrĕvier*. Like the latter, *abbreviate*, was often spelt *a-breviate* in 5-7.] To make shorter, shorten, cut short in any way.

1530 PALSGR. *I* abbreviate: I make a thyng shorte, *ʒ* *abreges*. 1625 BACON *Essays* xxiv. 99 (1862) But it is one Thing to Abbreviate by Contracting, Another by Cutting off.

† *l. trans.* To make a discourse shorter by omitting details and preserving the substance; to abridge, condense. *Obs.*

a 1450 *Chester Pl.* I. 2 (Sh. Soc.) This matter he abbreviated into playes twenty-foure. 1592 GREENE *Conny catching* III. 16 The queene abreviated her discourse. 1637 RALEIGH *Mahomet* 34 Abreviated out of two Arabique writers translated into Spanish. 1672 MANLEY *Interpreter* pref., I have omitted several Matters . . . contracted and abbreviated Others.

† *b.* To make an abstract or brief of, to epitomize. *Obs.*

c 1450 *TREVISA Higden's Polychr.* I. 21 (Rolls Ser.) Trogus Pompeius, in hys xlth iij. bookes, allemoste of alle the storyes of the worlde, whom Iustinus his disciple did abbreviate. 1603 FLORIO *Montaigne* (1634) 627 To reade, to note, and to abbreviate Polibius. 1648-9 *The Kingdomes Weekly Intelligencer* Jan. 16 to 23 The high court of Justice did this day sit again concerning the trial of the King. The charge was brought in and abbreviated.

† *c. Math.* To reduce (a fraction) to lower terms. *Obs.*

1796 *Mathem. Dict.* I. 2 To abbreviate fractions in arithmetic and algebra, is to lessen proportionally their terms, or the numerator and denominator.





Political Significance of the OED

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.

Richard Chevenix Trench

[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.